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ABSTRACT

With a total area of 197,116 square miles, the Appalachian Region has an uneven distribution of population, income, wealth, and natural resources. The Region's 19 million people live in 397 counties and 5 independent cities in Virginia, which range in population size from 2.6 thousand tc 1.5 millior. Under 50% of the population live in metropolitan counties while cnly 25% live in rural counties. Economic productivity varies from one-sixth above the national average in Allegheny County, Pennsylvania, to less than one-fourth of the U.S. level in the poorest county in eastern Kentucky. Huge reserves of good coal are found in some counties, while others are without economically significant mineral resources. Appalachia also varies in the population's age structure, racial and ethnic composition, educational attainment, labor force participation, poverty levels, health conditions and services, and other facets of econcmic life and sccioeconomic well-being. This reference bcok presents information on the Region's topography; population change; population concentration and dispersal; population growth trends by county groups; population ethnicity; population 65 years of age and older; labor force, employment, and unemployment trends; employment by industry; personal income; poverty status of families; educational attainment and school enrcllment; nonfederal physicians; infant mortality trends; housing; ccal production; mineral industry establishments; agriculture and farm land; and local governments. (Author/NQ)

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What Is ARC?

The Appalachian Regional Commission (ARC) is composed of the Governors of the 13 states that comprise Appalachia and a federal cochairman who is appointed by the President. A states cochairman is elected from among the Governors, the position is rotated among the states. The Commission's staff of about 110 persons is headed by an executive director.

For many years, Appalachia, despite its rich natural resources, has suffered from chronic economic and social distresses: isolation; a lack of transportation to counteract its inaccessibility; boom-and-bust cycles of prosperity and poverty; unemployment; inadequate public facilities; a lack of social services. The Commission was established by Congress in 1965 as a means of relieving these distresses and thus of building a better economy and a better quality of life for Appalachia and its inhabitants.

ARC represents a unique experiment in cooperative development and in American government. The Commission's development program is the largest and most diversified effort of its kind ever undertaken in the United States. And ARC itself is a unique partnership of federal, state and local government.

This partnership is the key to the way in which ARC does business for Appalachia. A development program or a specific project proposal can be brought before the Commission only by a state: no projects can be initiated at the federal level. But all formal approvals of programs and projects require the affirmative vote of the commission's member-states. Through this joint effort, the Commission establishes regional priorities and plans regional investments.

A basic element in the ARC partnership is local participation in the Commission's development program. To assist local planning and to ensure that ARC funds are used to serve local communities, the Commission, through its member-states, works with areawide planning and development agencies, known as local development districts (LDDs). Each LDD has a board, consisting of elected officials and public representatives of several counties, and a professional staff. Both work with the local citizenry to assess local needs, to determine local priorities and to prepare local development plans based upon those needs and priorities.

The primary goals of the Appalachian program include:

providing every person living in the Region with the health and skills needed to compete in everyday life wherever he or she chooses to live

attracting new industry and manufacturing to the Region, thus providing more jobs and a more diversified economic base.

To accomplish these aims, Appalachia must have an adequate transportation system, community facilities (sewers, water and solid waste disposal systems, housing and related amenities), schools and hospitals and must take advantage of its rich natural resources without harm to the environment. The Commission's investments are therefore in these specific areas:

transportation

health and child development

education

community facilities and housing

energy, environment and natural resources

enterprise development

research and technical assistance.

Judith F. Maher, editor
Johan G. Middelthon, artist
Joe Kolb, graphics

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Appalachia—
A Reference Book

First Edition ■ June 1977

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Appalachian Regional Commission
1666 Connecticut Avenue, N.W. ■ Washington, D.C. 20235

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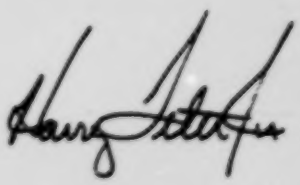
Foreword

This publication provides a factual overall perspective of important aspects of the Appalachian Region and recent trends. It is hoped that when future editions are prepared, additions and improvements may be made. The Commission would appreciate receiving suggestions from users of this volume for additional types of data needed, sources of better or more recent information or any errors which need to be corrected.

The regional data summarized herein provide information at the first two levels below the Region, the subregion and state part. The Commission data bank also has extensive data for the next two levels, local development districts and county units. For subcounty units (places or subdivisions of counties) less extensive material is available. Generally this level of detail must be secured from states, districts or localities; from planning agencies; or from other specialized agencies which have developed detailed data files for their areas of concern (geographic or subject-matter areas). In preparing data for the entire Region, consistency of data source and definitions are important to provide uniformity of treatment for all included areas.

Basic text and data tables were prepared by Jonathan Linkous and Jerome Pickard. Special computer tabulations and other data were provided by S. Joseph Cerniglia and Rodney Mitchell, all of the ARC staff.



Harry Teter, Jr.
Executive Director

Introduction

The Appalachian Region

The Appalachian Region follows the spine of the Appalachian Mountains from the Catskill Mountains of New York to northeastern Mississippi. It includes all of West Virginia and parts of twelve other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee and Virginia. See the map on page 7.

With a total area of 197,116 square miles (land, 194,871; water, 2,245), the Appalachian Region is one-fourth larger than California and extends over almost exactly the same span of latitude. The extremely uneven topography of Appalachia consists of old, rounded and rugged mountains culminating in Mount Mitchell (6,684 feet, or 2,089 meters), rough mountains and hill lands derived from deeply dissected plateaus, folded mountains forming long ridges enclosing valleys of varying width, high rolling plateaus (glaciated with lakes in the northern part of the Region) and valley lowlands and piedmont on the Region's margins.

The only ports in this landlocked region are on Lake Erie and a few of the major rivers; it is served by a rail network (concentrated to some extent in the coal-mining regions) and a varied network of highways, including portions of the Interstate system and segments of the Appalachian Development Highway System which are now open.

The distribution of population, income, wealth and natural resources matches the unevenness of topography. The Region's 19 million people (1975) live in 397 counties and 5 independent cities in Virginia, which range in population size from 1.5 million (Allegheny County, Pennsylvania) to 2.6 thousand (Highland County, Virginia). In 1975 the average density was 98 persons per square mile compared to 180 per square mile for the rest of the eastern half of the United States. On the other hand, under 50 percent of Appalachia's population live in metropolitan counties while only 25 percent live in rural counties. Inmigration at a rate of 1.6 percent occurred from 1970 to 1975 compared to the overall outmigration of the 1960s. The northern subregion, however, continues to experience outmigration at a rate of minus 0.5 percent.

Economic productivity (measured by per capita earnings at place of work) varies from one-sixth above the national average in Allegheny County, Pennsylvania, to less than one-fourth of the U.S. level in the poorest county in eastern Kentucky. Although the regional per capita income level gained on the nation between 1965 and 1974, it remains about 17 percent lower than the national average. No Appalachian state area equals the U.S. level of per capita income, and the Appalachian portions generally have much lower per capita incomes than the non-Appalachian portion of the states. The most rapid gain in income was in the central subregion, the slowest gain in the northern subregion.

Huge reserves of good coal are found in some counties, while others are without economically significant mineral resources. Coal produced in Appalachia accounted for 62 percent of the total U.S. production in 1974. It is found chiefly in the northern and central subregions and has been mined primarily from underground seams. The share of surface mining has risen, reaching 44 percent in 1974.

Farm land and forests range from rich and valuable to poor and virtually worthless. A smaller proportion of land is devoted to farming in Appalachia than in the eastern United States. Farm land accounts for 38 percent of Appalachian land compared to 48 percent of non-Appalachian eastern U.S. land. The Appalachian farms are generally smaller and the value of land and buildings is lower than in the rest of the United States.

Everywhere in Appalachia variety and diversity are found—in the age structure of the population, its racial and ethnic composition, educational attainment, labor force participation, levels of poverty, health conditions and services and many other facets of economic life and socioeconomic well-being. In 1974 the Region had only two-thirds of the national level of nonfederal physicians per 100,000 population (101 vs. 152). This level varied widely within the Region from 132 in the northern metropolitan areas to 43 in the southern rural counties. No state portion in Appalachia averaged higher than 80 percent of the U.S. level.

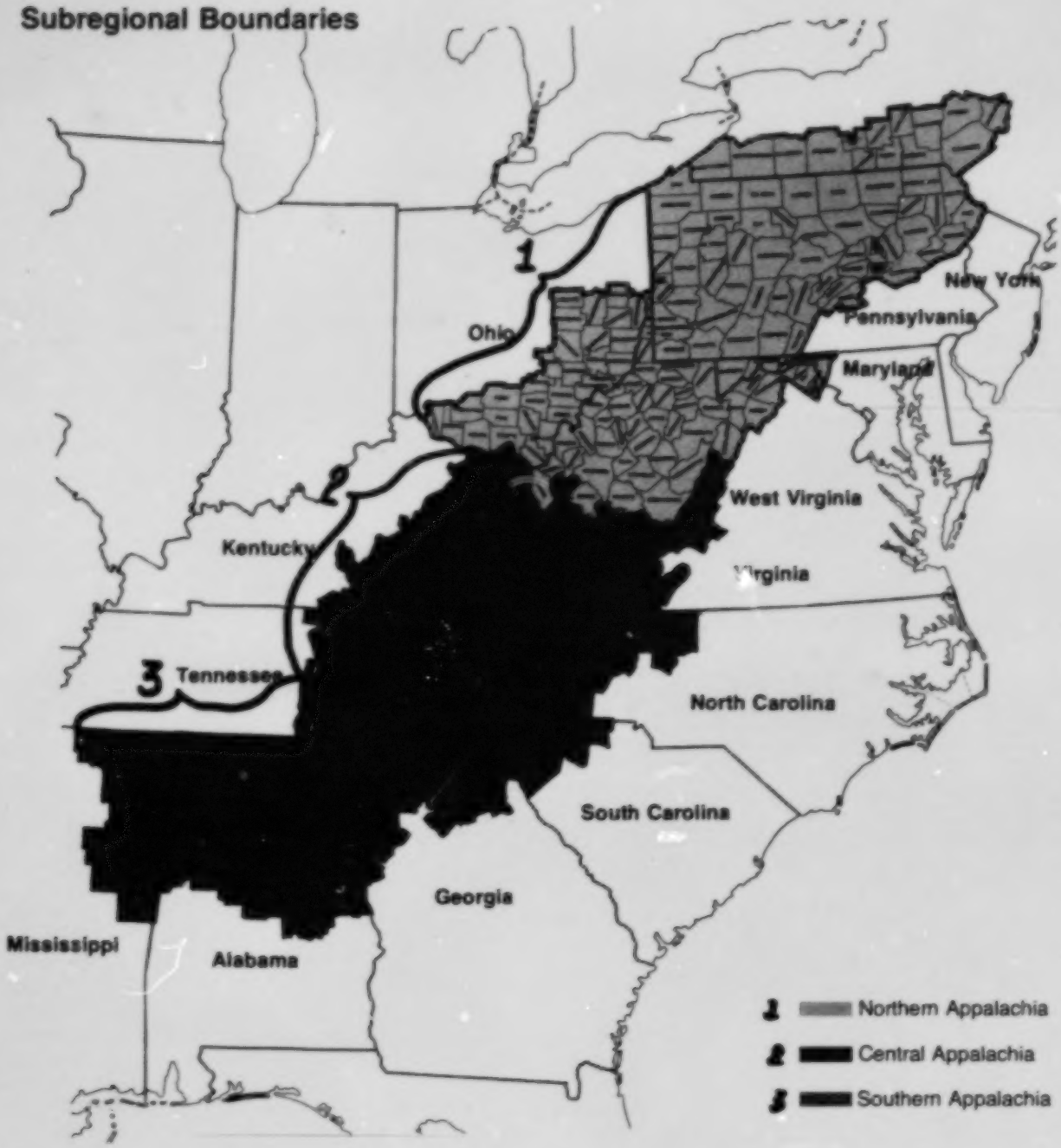
From 1968 through 1974 the infant mortality rates in Appalachia fell at about the same rate as the U.S. and remained at 6 percent higher than the rate for the U.S. Within the Region the infant mortality rates were highest in Central Appalachia and among nonwhites.

Ten percent of the nation's local governments are found in Appalachia, but they spent only 6 percent of all funds spent by local governments in 1971–72. General local government revenue per capita is lower than the U.S. average ($343 vs. $510), and a greater proportion of it is provided by the state. Appalachian local governments also had lower per capita expenditures and a higher percentage of expenditures on education and highways than the national norm.

The Appalachian Subregions

The three subregions of Appalachia contrast sharply (see map on page 7). **Northern Appalachia** has the largest population, is most urbanized, with the highest income levels, and is the most developed by most social and economic indicators. However, most of the northern subregion is below national average levels in favorable indicators, and its trends frequently lag the nation and are well behind the Region's *rate* of improvement in

Subregional Boundaries



recent years, especially in Appalachian New York, Pennsylvania and Maryland.

Central Appalachia, on the other hand, has the smallest and least urbanized population, lowest levels of income and educational attainment, the poorest housing and by most social and economic measurements is far behind regional and national averages. In recent years, however, many measures have improved relatively, particularly levels of personal income.

Southern Appalachia is nearest the Region's average, with a rapidly developing economy. Its metropolitan and urban counties are rising toward national averages; in many instances the southern subregion has contributed the lion's share of regional gains.

Within all three subregions there exist relatively wide gaps between the principal metropolitan and urban counties and rural counties with smaller populations and markedly lower levels of living. The great diversity of conditions in the Appalachian Region is found at every geographic level.

Topography

Bill Brower

Appalachian Topography

Geologically, the Appalachian Region of folded, faulted, old mountains of eastern North America extends from Newfoundland to Oklahoma; geographically the term is applied to the mountainous heart of this region, from the Gaspé Peninsula of Quebec to central Alabama. As defined by the Commission, the Appalachian Region lies entirely to the southwest of the Mohawk-Hudson Valley lowland, extending some 1,070 miles from the edge of the Catskill Mountains in New York to the coastal plain of north-central Mississippi, comprising an area of 195,000 square miles (24,000 square miles is the state of West Virginia and the rest is in parts of 12 states). The highest summits in the entire Region are in Appalachian North Carolina.

The varied terrain of Appalachia has been generalized into three types: mountains and high plateaus; hills and low plateaus; and plains and lowlands (see Table 1). The mountain region, with its many included valleys, covers some 94,000 square miles (48 percent of the total). Of this, the large valley region of east Tennessee comprises 6,000 square miles. Two types of mountain topography are found here: the rugged dissected massive mountains and the ridge and valley lands with their long linear ridges and parallel valleys.

Appalachian hill country (68,000 square miles; 35 percent of the total) is mostly highly dissected and quite rough terrain, though there are some low plateaus and open hill lands in these areas. The valleys are often narrow but not so deep as in the mountains.

Lowlands and plains in the Region tend to be rolling rather than flat, as they are fringing lowlands adjacent to the hills and mountains, excepting in the southwestern extremities of Appalachia. There the coastal plain lowlands of Appalachian Mississippi and Alabama and the Middle Tennessee Valley of northern Alabama cover 20,000 square miles or two-thirds of the Region's 33,000 square miles of lowlands. The lowlands comprise 17 percent of the total land area of Appalachia.

In 1975, of the Region's 19.0 million people, the mountains had 7.9 million (41 percent), but 1.4 million of these were in the three large valley areas. Hill country with 8.1 million (43 percent) is more populous, but 3.8 million are in two great metropolitan concentrations (Pittsburgh region and Birmingham). Population density elsewhere in the hill country (73 per square mile) is almost the same as in the mountain areas (75 per square mile) outside the large valleys. The lowlands and plains with 3.0 million people in 1975 (16 percent of the Region) average higher in density (92 per square mile), but this varies widely. (See Table 2 on page 10 and the map on page 11.)

Table 1

Terrain Types with Population Trends and Density Appalachian Region

Appalachian Region Terrain Types	Land Area 1970 (square miles)	Population 1975* (thousands)	Population 1970† (thousands)	Population Change 1970–75 (thousands)	Population Change 1970–75 (percent)	Population Density 1975 (per square mile)
Appalachian Region	**194,871**	**19,026.7**	**18,217.1**	**809.6**	**4.4%**	**98**
Mountains and High Plateaus	86,810	6,489.9	6,196.1	293.8	4.7%	75
Hills and Low Plateaus	74,979	9,492.4	9,204.9	287.5	3.1	127
Pittsburgh Region and Birmingham	8,763	3,763.3	3,832.3	-69.1	-1.8	429
Large Mountain Valleys	7,096	1,399.8	1,304.9	94.8	7.3	197
Hill Country	59,120	4,329.4	4,067.6	261.8	6.4	73
Plains and Lowlands	33,082	3,044.4	2,816.1	228.3	8.1	92

Source: Based on land resource regions of the United States with data from computer file defined to county units and adapted to Appalachian Region by ARC staff. U.S. Department of Agriculture, *Land Resource Regions and Major Land Resource Areas of the United States*, Agriculture Handbook 296 (Washington, D.C.: U.S. Government Printing Office, 1965).

*U.S. Bureau of Census provisional population estimates for July 1, 1975.
†U.S. Bureau of Census population statistics, including revised totals after 1970 final totals.

Table 2

Land Resource Regions with Population Trends and Density
Appalachian Region

Appalachian Land Resource Regions	Terrain Type*	Land Area 1970 (square miles)	Population 1975† (thousands)	Population 1970‡ (thousands)	Population Change 1970-75 (thousands)	Population Change 1970-75 (percent)	Population Density 1975 (per square mile)
Appalachian Region	**M,H,P**	**194,871**	**19,026.7**	**18,217.1**	**809.6**	**4.4%**	**98**
Cumberland Plateau and Mountains	M,H	24,677	19,624.9	1,521.8	103.2	6.8%	66
Mountains	M	9,786	613.7	564.7	48.9	8.7	63
Hill Country	H	14,891	1,011.3	957.1	54.2	5.7	68
Eastern Allegheny Plateau and Mountains	M	17,185	1,211.3	1,182.0	29.4	2.5%	70
Southern Appalachian Ridges and Valleys	M,H,P	30,236	3,031.1	2,849.8	181.2	6.4%	100
Mountains	M	20,264	1,341.9	1,255.8	86.1	6.9	66
East Tennessee Valley	H	5,782	1,195.2	1,113.9	81.3	7.3	207
Valley of Virginia	H	328	32.6	29.6	3.0	10.3	99
Middle Tennessee Valley	P	3,862	461.3	450.6	10.7	2.4	119
Blue Ridge	M	12,783	765.7	705.6	60.1	8.5%	60
Glaciated Allegheny Plateau	M,H	21,498	2,249.9	2,193.7	56.1	2.6%	105
Mountain and High Plateau	M	17,962	1,781.4	1,729.6	51.9	3.0	132
Hills and Low Plateau	H	3,536	468.4	464.2	4.3	0.9	99
Northern Appalachian Ridges and Valleys	M,H	9,816	947.8	919.9	27.9	3.0%	97
Mountains	M	8,830	775.9	758.4	17.4	2.3	88
Great Valley-Shenandoah Valley	H	986	171.9	161.5	10.5	6.5	174
Highland Rim	H	7,147	346.1	318.9	27.2	8.5%	48
Western Allegheny Plateau	H	5,204	387.5	368.2	19.3	5.2%	124
Central Allegheny Plateau	H	20,411	4,094.2	4,131.4	−37.2	−0.9%	201
Pittsburgh Region	H	7,648	3,117.1	3,187.4	−70.3	−2.2	408
Balance of Plateau	H	12,763	977.1	944.0	33.1	3.5	77
Sand Mountain	H	5,253	927.8	893.4	34.4	3.9%	177
Birmingham§	H	1,115	646.2	645.0	1.2	0.2	580
Balance of Sand Mountain	H	4,138	281.6	248.4	33.2	13.4	68
Southern Piedmont	H,P	17,778	1,997.5	1,778.9	218.5	12.3%	112
Hilly (Upper) Piedmont	H	11,441	857.3	766.9	90.5	11.8	75
Central Piedmont	P	6,337	1,140.2	1,012.1	128.1	12.7	180
Lake Erie Lowland	P	407	267.0	262.7	4.2	1.6%	656
Ohio Till Plains**	P	2,608	255.4	235.2	20.2	8.6%	98
Kentucky Bluegrass	P	2,122	139.9	128.9	11.0	8.6%	66
Nashville Basin	P	646	21.7	20.6	1.1	5.1%	34
Southern Coastal Plain	P	15,537	695.2	644.1	51.2	7.9%	45
Alabama-Mississippi Blackland Prairies	P	1,563	63.6	61.9	1.8	2.8%	41

Source: Based on land resource regions of the United States with data from computer file defined to county units and adapted to Appalachian Region by ARC staff. U.S. Department of Agriculture, *Land Resource Regions and Major Land Resource Areas of the United States*, Agriculture Handbook 296, (Washington, D.C.: U.S. Government Printing Office, 1965).

*M—mountains and high plateaus
H—hills and low plateaus
P—plains and lowlands

†U.S. Bureau of Census provisional population estimates for July 1, 1975.

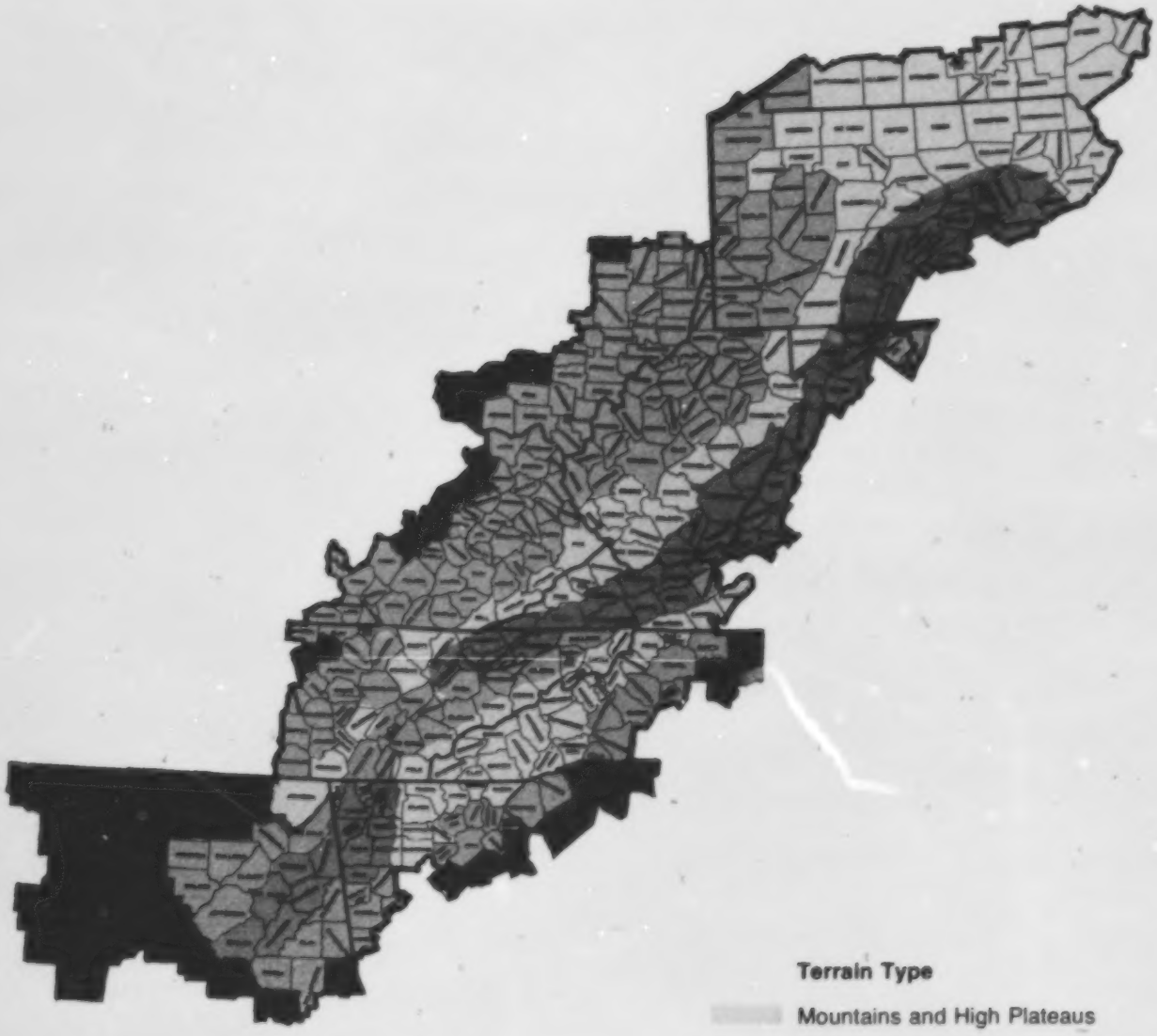
‡U.S. Bureau of Census population statistics, including revised totals after 1970 final totals.

§High density area consists of Jefferson County, Alabama.

Consists of narrow lowland strip parts of Erie County, Pennsylvania and Chautauqua County, New York. Population split estimated for 1975 by the Appalachian Regional Commission

**Composed of small portions in Ohio of three larger land resource till areas.

Topography
Appalachian Region



Population

15

Bill Brower

Population Change in the Appalachian Region

The 1975 population of the Region is estimated at 19,027,000, a gain of 810,000 in the 5¼ years since the 1970 Census. 64 percent of the growth in this period derived from natural increase (518,000) and 36 percent from net inmigration. This is a sharp change in trend from the decade of the 1960s with its outmigration from Appalachia (see Tables 3 and 4 on pages 14 and 15 and the maps on pages 16 and 17).

Northern Appalachia, the most populous subregion, continues to have outmigration, primarily due to the outmigration from Pennsylvania, which has 60 percent of the subregional population. Both Ohio and northern West Virginia have turned around from population losses in the late 60s to marked growth in the 70s.

In Central Appalachia all state areas have turned around from loss to gain, and all state areas show strong inmigration, with the exception of central West Virginia. Inmigration contributed more than natural increase to subregional growth.

Southern Appalachia, which has grown significantly over the last 15 years, has experienced an accelerated rate of population gain in the 1970s, paced by Appalachian Georgia (3.1 percent per annum) and South Carolina (1.9 percent). The southern subregion accounted for two-thirds of the Region's total population increase for the 1970–75 period.

Population growth in the Appalachian Region has accelerated since 1970, with all subregions sharing in the changing trend, though the total growth rate of 4.4 percent is slightly behind the national average of 4.8 percent. As in the nation, the slowest growth is in the northern regions and the most rapid growth in the southern areas.

Table 3

Population Change and Estimated Sources of Change Appalachian Region and United States April 1970–July 1975

Geographical Division	Population		1970–75 Estimated Sources of Population Change					
	July 1, 1975* (thousands)	April 1, 1970† (thousands)	Total Change‡ (thousands)	Natural Change (thousands)	Net Migration (thousands)	Total Change (percent)	Natural Change (percent)	Net Migration (percent)
United States	**213,051**	**203,304**	**9,748**	**7,281**	**2,467**	**4.8%**	**3.6%**	**1.2%**
Appalachian Region	**19,026.7**	**18,217.1**	**809.6**	**517.8**	**291.8**	**4.4%**	**2.8%**	**1.6%**
Subregions								
Northern								
Appalachia	**9,960.4**	**9,734.0**	**126.4**	**179.9**	**−53.5**	**1.3%**	**1.8%**	**−0.5%**
Maryland	213.7	209.3	4.3	3.9	0.5	2.1	1.8	0.2
New York	1,079.1	1,056.6	22.5	25.4	− 2.9	2.1	2.4	−0.3
Ohio	1,184.0	1,129.9	54.1	32.0	22.1	4.8	2.8	2.0
Pennsylvania	5,932.8	5,930.5	2.3	84.0	−81.7	0.04	1.4	−1.4
West Virginia	1,450.9	1,407.7	43.2	34.6	8.6	3.1	2.5	0.6
Central								
Appalachia	**1,886.0**	**1,744.9**	**141.1**	**65.7**	**75.4**	**8.1%**	**3.8%**	**4.3%**
Kentucky	952.3	876.5	75.8	34.8	41.0	8.6	4.0	4.7
Tennessee	365.4	334.6	30.9	10.1	20.8	9.2	3.0	6.2
Virginia	216.3	197.3	19.0	7.9	11.1	9.6	4.0	5.6
West Virginia	352.0	336.5	15.5	12.9	2.5	4.6	3.8	0.8
Southern								
Appalachia	**7,280.2**	**6,738.2**	**542.1**	**272.2**	**269.9**	**8.0%**	**4.0%**	**4.0%**
Alabama	2,242.5	2,137.4	105.1	81.7	23.4	4.9	3.8	1.1
Georgia	956.4	813.8	142.6	45.2	97.3	17.5	5.6	12.0
Mississippi	446.5	418.6	27.9	19.0	8.9	6.7	4.5	2.1
North Carolina	1,119.4	1,039.0	80.4	35.6	44.8	7.7	3.4	4.3
South Carolina	726.0	656.4	69.5	30.2	39.4	10.6	4.6	6.0
Tennessee	1,504.8	1,399.9	104.9	53.7	51.2	7.5	3.8	3.7
Virginia	284.7	273.0	11.7	6.8	4.9	4.3	2.5	1.8
State Parts§								
Tennessee	1,870.2	1,734.5	135.7	63.8	72.0	7.8%	3.7%	4.1%
Virginia	501.0	470.3	30.7	14.7	16.0	6.5	3.1	3.4
West Virginia	1,802.9	1,744.2	58.6	47.5	11.1	3.4	2.7	0.6

Source: Compiled by ARC from U.S. Bureau of the Census "Estimates of the Population of [name of state] Counties and metropolitan Areas: July 1, 1974 and 1975" (also contains corrected 1970 census data), *Current Population Reports*, Series P-26 and Series P-25, Washington, 1976, 13 reports for Appalachian states and unpublished data tabulations.

Note: All data totals are independently rounded from unrounded source data; totals may not add due to rounding.
*U.S. Bureau of Census provisional population estimates for July 1, 1975.
†Revised 1970 U.S. Bureau of Census population data.
‡Change between April 1, 1970, and estimated July 1, 1975, population after post-census late corrections to 1970 population totals.
§Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
" Entire state.

Table 4

Population Trends and Annual Rates of Change Appalachian Region and United States 1960–1975

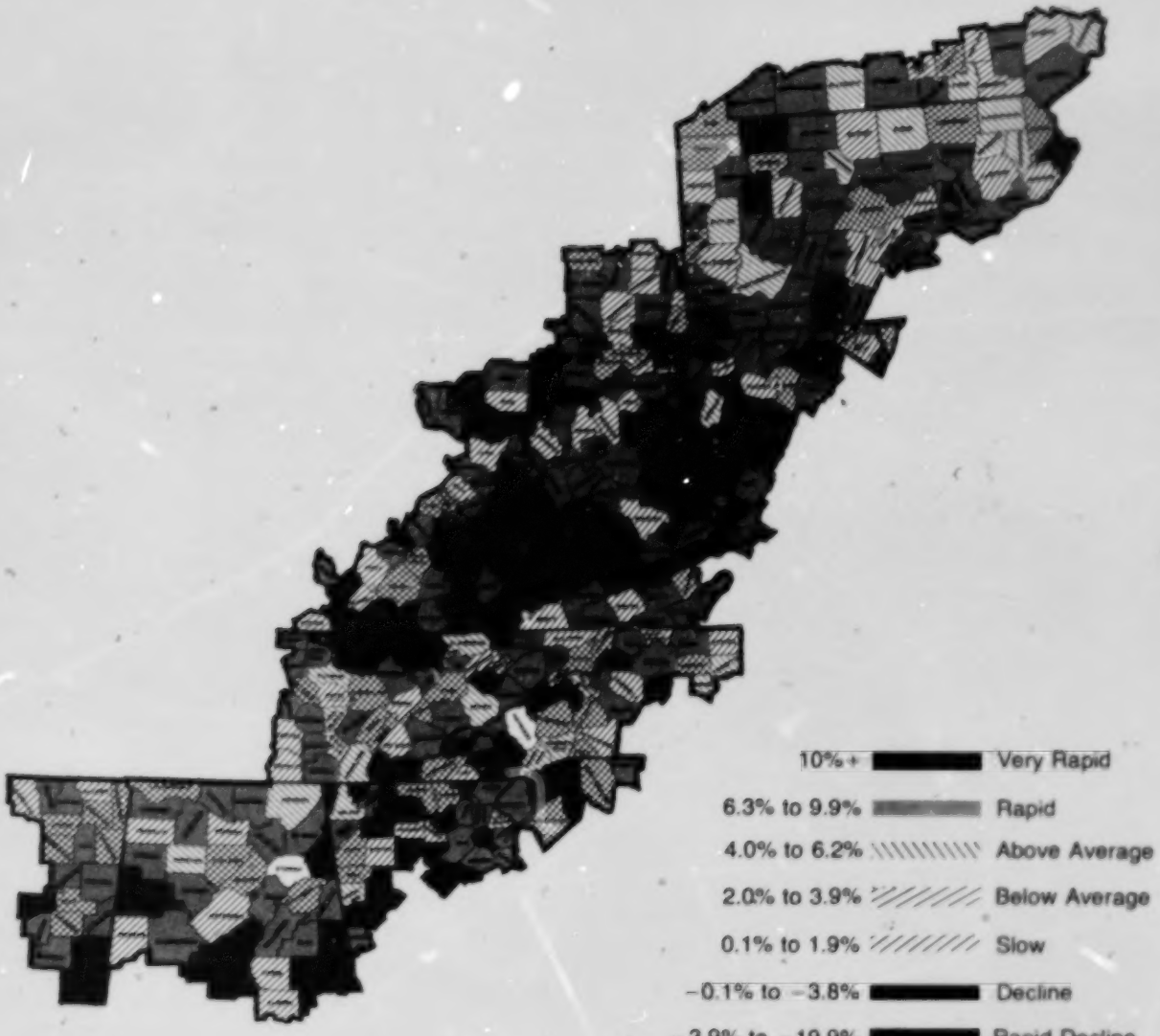
Geographical Division	Population				Annual Rate of Change		
	July 1, 1975* (thousands)	April 1, 1970† (thousands)	July 1, 1966‡ (thousands)	April 1, 1960 (thousands)	1970–75 (percent)	1966–70 (percent)	1960–66 (percent)
United States	**213,121**	**204,304**	**195,531**	**179,311**	**0.9 %**	**1.0 %**	**1.4 %**
Appalachian Region	**19,026.7**	**18,217.1**	**18,105.5**	**17,726.6**	**0.8 %**	**0.16%**	**0.34%**
Subregions							
Northern Appalachia	**9,860.4**	**9,734.0**	**9,737.6**	**9,705.6**	**0.25%**	**–0.01%**	**0.05%**
Maryland	213.7	209.3	209.7	195.8	0.4	–0.05	1.1
New York	1,079.1	1,056.6	1,060.1	1,000.1	0.4	–0.1	0.9
Ohio	1,184.0	1,129.9	1,150.9	1,119.6	0.9	–0.5	0.4
Pennsylvania	5,932.8	5,930.5	5,896.3	5,930.8	0.01	0.15	–0.1
West Virginia	1,450.9	1,407.7	1,420.0	1,459.4	0.6	–0.2	–0.4
Central Appalachia	**1,886.0**	**1,744.9**	**1,816.6**	**1,879.1**	**1.5 %**	**–1.1 %**	**–0.5 %**
Kentucky	952.3	876.5	912.6	922.2	1.6	–1.1	–0.2
Tennessee	365.4	334.6	338.2	327.7	1.7	–0.3	0.5
Virginia	216.3	197.3	210.8	228.2	1.8	–1.8	–1.3
West Virginia	352.0	336.5	354.9	401.0	0.9	–1.4	–1.9
Southern Appalachia	**7,280.2**	**6,738.2**	**6,551.3**	**6,141.8**	**1.5 %**	**0.75%**	**1.0 %**
Alabama	2,242.5	2,137.4	2,132.0	1,982.3	0.9	0.07	1.2
Georgia	956.4	813.8	746.1	675.0	3.1	2.3	1.6
Mississippi	446.5	416.6	415.6	406.2	1.2	1.9	0.4
North Carolina	1,119.4	1,039.0	1,013.2	939.7	1.4	0.7	1.2
South Carolina	726.0	656.4	610.2	586.5	1.9	2.0	0.6
Tennessee	1,504.8	1,399.9	1,358.2	1,280.0	1.4	0.8	0.95
Virginia	284.7	273.0	276.0	272.1	0.8	–0.3	0.2
State Parts§							
Tennessee	1,870.2	1,734.5	1,696.4	1,607.1	1.4 %	0.6 %	0.9 %
Virginia	501.0	470.3	486.8	500.3	1.2	–0.9	–0.4
West Virginia	1,802.9	1,744.2	1,774.9	1,860.4	0.6	–0.5	–0.75

Source: Compiled by ARC from U.S. Bureau of the Census, 1975 county population estimates, 1970 Census of Population (revised data) and 1960 Census of Population. 1966 population estimates based on census county population estimates for July 1, 1966, revised and adjusted by ARC to new state total estimates developed by U.S. Bureau of the Census (data published in Series P-25, no. 460, Table 1) in 1971.

Note: All data totals are independently rounded from unrounded source data; totals may not add due to rounding.

*U.S. Bureau of Census provisional population estimates for July 1, 1975.
†Revised 1970 U.S. Bureau of Census population data.
‡U.S. Bureau of Census provisional population estimates for July 1, 1966.
§Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
" Entire state.

Population Growth Rate in Appalachian Counties
1966 - 1970

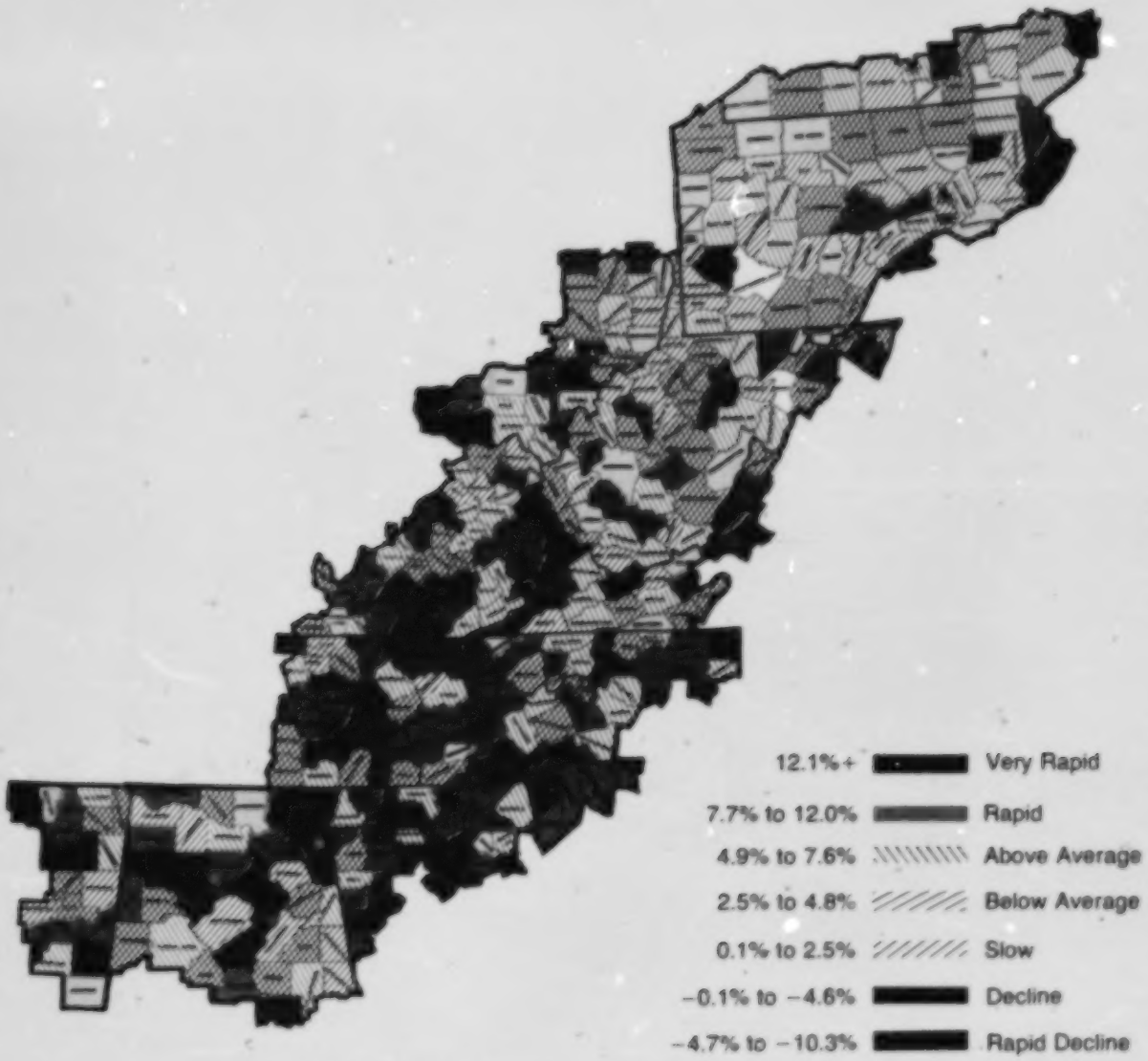


□ = In two counties, 1966–1970 change in population was estimated at less than 0.5 percent

Average = U.S. average rate of growth (3.98%)

Source: U.S. Bureau of the Census, 1966 county population estimates (Series P-25) adjusted by ARC staff to post-1970 estimated state totals for 1966, 1970 Census of Population (most recent revised data).

Population Growth Rate in Appalachian Counties
1970 - 1975


12.1%+ Very Rapid
7.7% to 12.0% Rapid
4.9% to 7.6% Above Average
2.5% to 4.8% Below Average
0.1% to 2.5% Slow
−0.1% to −4.6% Decline
−4.7% to −10.3% Rapid Decline

□ = In two counties, 1970–1975 change in population was estimated at less than 0.5 percent

Average = U.S. average rate of growth (4.83%)

Source: U.S. Bureau of the Census, 1970 Census of Population (most recent revised data); 1975 county population estimates (Series P-25 and P-26 reports for individual states).

Population Concentration and Dispersal in the Appalachian Region

In 1975 population density in the Appalachian Region was 98 per square mile: higher than the overall U.S. average (72 per square mile, excluding Alaska and Hawaii) but little more than one-half the density (180 per square mile) of the non-Appalachian United States east of the Mississippi River. Density within the Region varies widely from over 2,000 in Allegheny County, Pennsylvania, to 6 in Highland County, Virginia.

One-fifth of the Region's population lives in the single great concentration surrounding Pittsburgh and extending into northern West Virginia and eastern Ohio—the 21 counties in the high-density region covered 5.7 percent of regional land area and had an average 1975 population density of 352 per square mile. This area has lost an estimated 66,000 population since 1970. Elsewhere in Appalachia, population has generally increased (see map on page 17). No other concentration has more than 6 percent of the Region's population.

At the state-part level, in addition to Appalachian Pennsylvania, only South Carolina, Maryland and southern Appalachian Tennessee had 1975 densities averaging over 100 per square mile or higher than the regional average.

Dispersed population is population *not* clustered in communities of 1,000 or more inhabitants. In the Appalachian Region 45 percent of the total 1970 population was dispersed in small communities or scattered, contrasting with only about 20 percent of the total population in surrounding areas of the eastern United States. The northern subregion has the least dispersal (38 percent), followed by the southern (49 percent) and central (71 percent) subregions. Within state areas the dispersed population varied from 31 percent of the total in Appalachian Pennsylvania to 77 percent in central Appalachian Virginia (see Table 5 on page 19).

Table 5

Population Concentration
Appalachian Region and United States
1970–1975

Geographical Division	Land Area 1970 (square miles)	Population July 1, 1975* (thousands)	Density 1975† (per square mile)	Population April 1, 1970‡ (thousands)	Clustered Population§ 1970 (thousands)	Clustered Population 1970 (percent)	Dispersed Population 1970 (percent)
United States (48 states and Washington, D.C.)	**2,963,998**	**213,051.5**	**72.0**	**203,304**	—	**78. %**	**22. %**
Appalachian Region	**194,871**	**19,026.7**	**97.6†**	**18,217.1**	**10,631.0**	**55.1%**	**44.9%**
Subregions							
Northern Appalachia	**83,581**	**9,860.4**	**118.0**	**9,734.0**	**6,057.6**	**62.2%**	**37.8%**
Maryland	1,546	213.7	138.2	209.3	110.6	52.8	47.2
New York	11,806	1,079.1	91.4	1,056.6	600.9	56.9	43.1
Ohio	13,732	1,184.0	86.2	1,129.9	530.8	47.0	53.0
Pennsylvania	36,625	5,932.8	162.0†	5,930.5	4,094.6	69.0	31.0
West Virginia	19,871	1,450.9	73.0	1,407.7	720.7	51.2	48.8
Central Appalachia	**31,906**	**1,886.0**	**59.1**	**1,744.9**	**507.2**	**29.1%**	**70.9%**
Kentucky	16,942	952.3	56.2	876.5	240.8	27.5	72.5
Tennessee	7,528	365.4	47.9	334.6	113.3	33.9	66.1
Virginia	3,237	216.3	66.8	197.3	45.7	23.1	76.9
West Virginia	4,199	352.0	83.8	336.5	107.4	31.9	68.1
Southern Appalachia	**79,384**	**7,280.2**	**91.7**	**6,738.2**	**3,466.2**	**51.4%**	**48.6%**
Alabama	24,600	2,242.5	91.2	2,137.4	1,351.6	63.2	36.8
Georgia	10,804	956.4	88.5	813.8	280.5	34.5	65.5
Mississippi	10,313	446.5	43.3	418.6	157.6	37.6	62.4
North Carolina	11,884	1,119.4	94.2	1,039.0	405.9	39.1	60.9
South Carolina	3,912	726.0	185.6	656.4	400.0	60.9	39.1
Tennessee	11,710	1,504.8	128.5	1,399.9	779.9	55.7	44.3
Virginia	6,161	284.7	46.2	273.0	90.8	33.3	66.7
State Parts							
Tennessee	19,238	1,870.2	97.0	1,734.5	893.2	51.5%	48.5%
Virginia	9,398	501.0	53.3	470.3	136.5	29.0	71.0
West Virginia**	24,070	1,802.9	74.9	1,744.2	828.1	47.5	52.5
Non-Appalachian, States East of Mississippi River	**658,451**	**118,652.8**	**180.0**	**114,596.1**	—	**79.5%**	**20.5%**

Source: 1970 Census of Population, published and unpublished data, tabulated by ARC staff.

*U.S. Bureau of Census provisional population estimates for July 1, 1975.
†1975 density adjusted for new Raytown Reservoir in Pennsylvania (11 square miles), but all data otherwise pertain to 1970 land areas.
‡Revised U.S. Bureau of Census population data.
§Clustered population: population living in communities of 1,000 or more inhabitants. 1970 data is most recent available.
- Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
**Entire state.

Population Growth Trends by County Groups in the Appalachian Region

In 1975 one-half of the Appalachian population lived in metropolitan counties (42 percent in major metropolitan and 8 percent in peripheral metropolitan), one-quarter lived in urban counties and one-quarter in rural counties. This compares with U.S. proportions of 73 percent metropolitan and 27 percent nonmetropolitan. Thus, Appalachian population in nonmetropolitan counties is almost twice the U.S. proportion.

Since 1970 nonmetropolitan areas have grown much more rapidly than metropolitan areas both in the Region (6.2 percent vs 2.7 percent) and in the nation (6.5 percent vs. 4.2 percent). Natural change for the Region's metropolitan areas in the 1970–75 period was quite low (2.6 percent) compared with the U.S. rate (3.7 percent). This was primarily due to the extremely low rate of natural population growth in Northern Appalachia (1.8 percent), which contained 58 percent of the Region's metropolitan population in 1970 and 56 percent in 1975. Natural growth in nonmetropolitan counties in Appalachia (3.1 percent) was similar to that in the United States (3.2 percent). Net migration rates for the five-year period in the Region were lower than for the nation for both groups: 0.2 percent vs. 0.5 percent for metropolitan counties; 3.1 percent vs. 3.3 percent for nonmetropolitan counties. But, because of the Region's greater mix of the latter, the total net migration rate (1.6 percent) for the Region exceeded the national rate (1.2 percent).

The subregions differ sharply in growth trends and components. Northern Appalachian rates are well below the regional average in every group, reflecting an overall sluggish performance in growth. In Central Appalachia the metropolitan counties resemble their northern counterparts, while urban counties and rural counties increased at rates comparable to Southern Appalachia. Southern Appalachian growth was consistently high excepting for the major metropolitan counties. As a group they had a low rate of net inmigration in contrast to a phenomenal rate of inmigration to peripheral metropolitan counties, which resulted in an overall southern metropolitan inmigration of 3.7 percent. See the map on page 21 and Table 6 on page 22.

The Metropolitan-Urban-Rural System of County Classification

With the continuing spread of population settlement into "rural" areas surrounding large metropolitan and urban centers, and even smaller urban centers, the usual separation of urban and rural population has become less useful. Large numbers of "urban noncity" people are living in "rural" areas purely for residential purposes. One result of this diffused city development is that the county has become more significant as a statistical unit. The typical county in the eastern half of the United States has a land area of 400 to 600 square miles (about 20 to 25 miles square). With widespread automobile ownership this may constitute a "commuting" community or a geographic market area. Thus whole counties may be classified according to their population settlement character, using population density, size of the urban places or areas and proportion of population classified as urban (i.e., in urban places or fringes at densities of 1,000 per square mile or more).

Three categories have been distinguished in the system used for our regional study:

(1) **Metropolitan County.** Centered around an urban area of at least 50,000 population, and with a total county population of at least 75,000, this group includes not only the central county but adjoining commuting counties meeting certain criteria established by the U.S. Office of Management and Budget (OMB).

(a) **Major Metropolitan.** In addition to meeting OMB criteria for a metropolitan county, a major metropolitan county must have either (1) population density (1970) of 100 per square mile or higher, or (2) at least 50 percent of its total population classified as urban.

(b) **Peripheral Metropolitan.** All other metropolitan counties with lesser densities or urbanization which would qualify otherwise as either urban or rural counties.

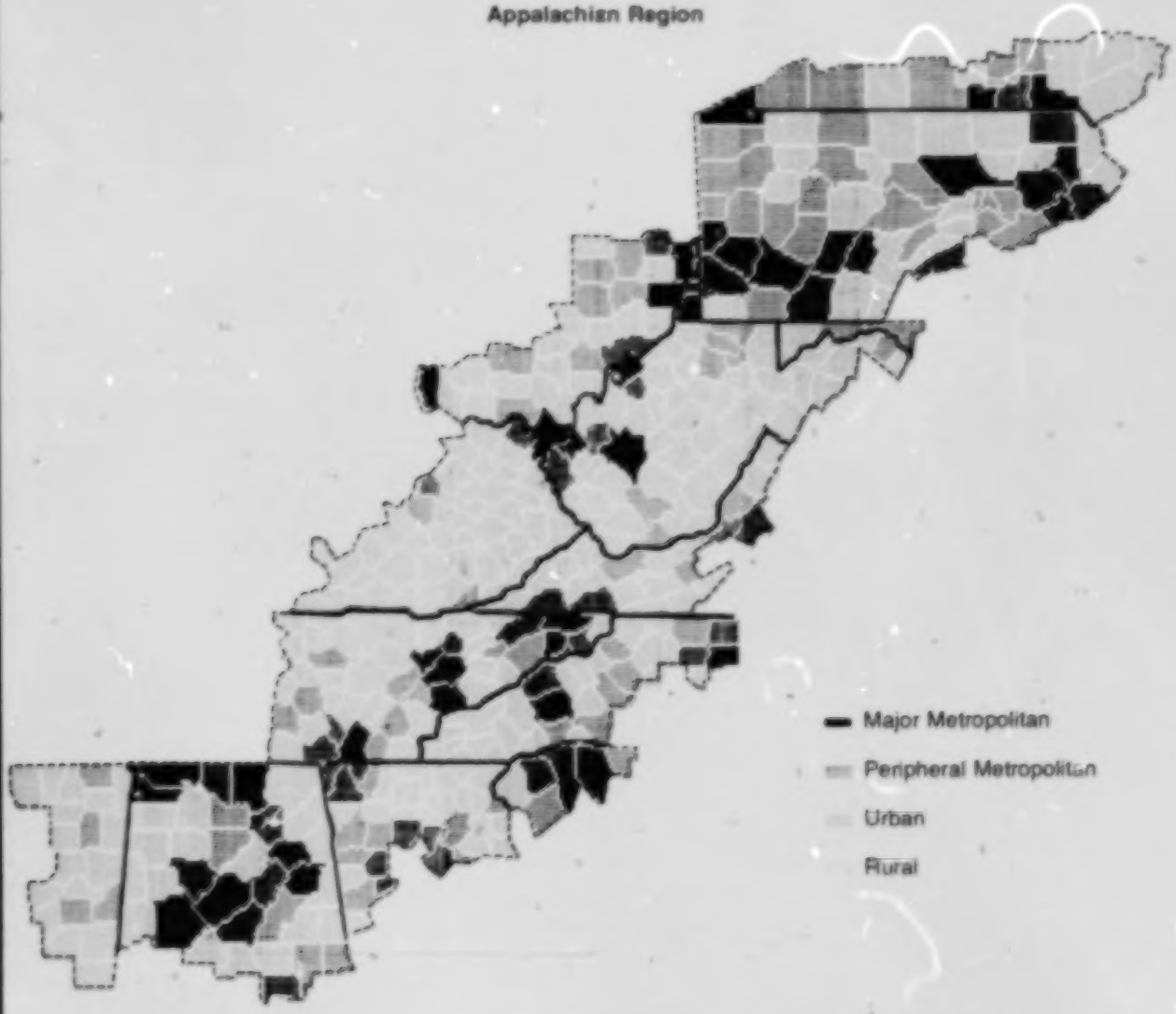
(2) **Urban County.** Any county (other than metropolitan) which meets two of these three criteria:

(a) Population density is at least 70 per square mile.

(b) Urban population is at least one-third of county total.
(c) County urban population is at least 15,000 **OR** largest urban place or urban cluster (group of contiguous places) has 10,000 or more population.

(under (c) for places split by county lines, at least one-half must be in the county)
(3) **Rural County.** Any county not meeting criteria for either metropolitan or urban classification; in general, counties with small towns or no urban places at all.

Metropolitan, Urban and Rural Counties
1975
Appalachian Region



Source: Map produced by composite mapping system developed by the U.S. Department of Commerce, Economic Development Administration and furnished to the Appalachian Regional Commission.

Table 6

Population Trend and Estimated Sources of Change
Appalachian Region, Subregions and County Group (metro, urban, rural)
April 1970–July 1975

Geographical Division	Population July 1, 1975* (thousands)	Population April 1, 1970† (thousands)	1970–75 Estimated Sources of Population Change: Total Change‡ (thousands)	Natural Change (thousands)	Net Migration (thousands)	Total Change‡ (percent)	Natural Change (percent)	Net Migration (percent)
Appalachian Region	**18,026.7**	**18,217.1**	**809.6**	**517.8**	**291.8**	**4.4%**	**2.8%**	**1.6%**
Metropolitan Counties	9,462.0	9,217.8	251.2	235.7	15.5	2.7	2.6	0.2
Major Metropolitan	7,984.0	7,920.9	63.1	179.4	−116.3	0.8	2.3	− 1.5
Peripheral Metropolitan	1,485.0	1,296.9	188.1	56.3	131.8	14.5	4.3	10.2
Urban Counties	4,803.2	4,580.2	223.0	136.6	86.5	4.9	3.0	1.9
Rural Counties	4,754.5	4,419.1	335.4	145.5	189.9	7.6	3.3	4.3
Subregions								
Northern Appalachia	**9,860.4**	**9,734.0**	**126.4**	**179.9**	**− 53.5**	**1.3%**	**1.8%**	**−0.5%**
Metropolitan Counties	5,317.6	5,353.7	− 36.1	82.4	−118.6	−0.7	1.5	−2.2
Major Metropolitan	4,910.7	4,974.7	− 64.0	70.9	−134.9	−1.3	1.4	−2.7
Peripheral Metropolitan	406.9	379.0	27.9	11.5	16.3	7.3	3.0	4.3
Urban Counties	2,838.5	2,770.3	68.3	57.1	11.2	2.5	2.1	0.4
Rural Counties	1,704.3	1,610.1	94.3	40.4	53.8	5.9	2.5	3.3
Central Appalachia	**1,886.0**	**1,744.9**	**141.1**	**85.7**	**75.4**	**8.1%**	**3.8%**	**4.3%**
Metropolitan Counties	198.6	194.3	4.3	6.5	− 2.3	2.2	3.4	−1.2
Major Metropolitan	113.5	112.7	0.8	3.4	− 2.6	0.7	3.0	−2.3
Peripheral Metropolitan	85.1	81.7	3.4	3.1	0.3	4.2	3.8	0.4
Urban Counties	338.2	309.4	28.8	10.6	18.2	9.3	3.4	5.9
Rural Counties	1,349.2	1,241.1	108.1	48.6	59.5	8.7	3.9	4.8
Southern Appalachia	**7,280.2**	**6,738.2**	**542.1**	**272.2**	**269.9**	**8.0%**	**4.0%**	**4.0%**
Metropolitan Counties	3,952.8	3,669.8	283.1	146.7	136.3	7.7	4.0	3.7
Major Metropolitan	2,959.9	2,833.6	126.3	105.1	21.1	4.5	3.7	0.7
Peripheral Metropolitan	993.0	836.2	156.8	41.7	115.1	18.7	5.0	13.8
Urban Counties	1,626.5	1,500.5	126.0	68.9	57.1	8.4	4.6	3.8
Rural Counties	1,700.9	1,567.9	133.0	56.5	76.5	8.5	3.6	4.9

Source: Compiled by ARC from U.S. Bureau of the Census "Estimates of the Population of [name of state] Counties and Metropolitan Areas: July 1, 1974, and 1975" (also contains corrected 1970 census data), *Current Population Reports*, Series P-26 and Series P-25, Washington, 1976, 13 reports for Appalachian states and unpublished data tabulations. Data tabulations by ARC computer systems staff.

Note: All data totals are independently rounded from unrounded source data; totals may not add due to rounding.

*U.S. Bureau of Census provisional population estimates for July 1, 1975.
†Revised 1970 U.S. Bureau of Census population data.
‡Change between April 1, 1970, and estimated July 1, 1975, population after post-census late corrections to 1970 population totals.

Population Ethnicity in the Appalachian Region

The percentage of white population in the Appalachian Region in 1970 was 93 percent compared to 88 percent in the United States. Blacks composed 7 percent of the Region's population (11 percent nationally), while American Indians and other races (chiefly Asiatic) numbered only 0.2 percent of the Region's people (see Table 7). There is great diversity within the Region, however. Black population varied from 29 percent of the total in Appalachian Mississippi to 1 percent in Appalachian New York. Asiatic population was widely scattered, but 35 percent of the Region's American Indians were found in four counties: three in North Carolina (Swain, Jackson and Graham) with 3,174 Indians; and Cattaraugus County, New York, with 1,318 Indians. Two rural counties in the Region, Kemper, Mississippi, and Bledsoe, Tennessee, had over 1 percent Indian population in 1970; the remaining Indians were widely scattered. Black population in Northern Appalachia was concentrated in the metropolitan and urban counties, while in parts of Central and Southern Appalachia significant black population was found in rural counties.

Population of foreign birth in the Region numbered 1,521,000 in 1970, or 8.35 percent of the regional population; the U.S. proportion was 16.5 percent. This population was concentrated in Northern Appalachia. National origin data show that Italy was the leading source (20 percent), followed by Poland (12.5 percent), Germany (10.5 percent), the United Kingdom (10 percent), Czechoslovakia and Austria (each just under 8 percent). Western Hemisphere immigrants, including Mexicans, were very small in number compared with some other sections of the nation, as were persons of Asian and African origin.

Table 7

Population by Major Racial Group Appalachian Region and United States 1970

Geographical Division	1970 Population* Total (thousands)	White (thousands)	Black (thousands)	American Indian (thousands)	Other Races† (thousands)	White (percent)	Black (percent)
United States (48 states and Washington, D.C.)	**203,211,926**	**177,748,975**	**22,580,289**	**792,730**	**2,089,932**	**87.5%**	**11.1%**
Appalachian Region	**18,212,232**	**16,889,364**	**1,284,405**	**12,760**	**25,703**	**92.7%**	**7.1%**
Subregions							
Northern Appalachia	**9,733,113**	**9,417,145**	**293,544**	**5,230**	**17,194**	**96.8%**	**3.0%**
Maryland	209,349	204,515	4,460	80	294	97.7	2.1
New York	1,056,367	1,039,033	11,889	2,102	3,343	98.4	1.1
Ohio	1,129,350	1,102,055	25,270	561	1,464	97.6	2.2
Pennsylvania	5,930,303	5,706,975	211,497	1,873	9,958	96.2	3.6
West Virginia	1,407,744	1,364,567	40,428	614	2,135	96.9	2.9
Central Appalachia	**1,744,900**	**1,687,469**	**54,928**	**700**	**1,803**	**96.7%**	**3.1%**
Kentucky	875,922	856,046	18,777	352	747	97.7	2.1
Tennessee	335,343	328,552	6,216	159	416	98.0	1.9
Virginia	197,142	193,958	3,021	52	111	98.4	1.5
West Virginia	336,493	308,913	26,914	137	529	91.8	8.0
Southern Appalachia	**6,734,219**	**5,784,750**	**935,933**	**6,830**	**6,706**	**85.9%**	**13.9%**
Alabama	2,137,278	1,700,657	433,327	948	2,346	79.6	20.3
Georgia	813,596	747,480	65,222	315	579	91.9	8.0
Mississippi	418,644	295,704	122,103	432	405	70.6	29.2
North Carolina	1,037,212	937,239	96,135	3,935	903	90.4	9.2
South Carolina	656,219	543,247	112,043	280	649	82.8	17.1
Tennessee	1,398,318	1,299,223	95,613	837	1,645	92.9	6.9
Virginia	272,952	261,200	11,490	83	179	95.7	4.2
State Parts‡							
Tennessee	1,733,661	1,627,775	102,829	996	2,061	93.9	5.9
Virginia	470,094	455,158	14,511	135	290	96.8	3.1
West Virginia§	1,744,237	1,673,480	67,342	751	2,664	95.9	3.9

Source: 1970 Census of Population, first count computer file data, corrected and edited by ARC staff from PC(1)-B series of state reports, Table 34 for each of 13 Appalachian states.

*Census totals are uncorrected final count data published in 1970 Census of Population, –B volumes. Data (in thousands) adjusted to official census total (203,235): white (178,098); black (22,581); other (2,556) including American Indians and other races.
†Other races consists chiefly of persons of Asiatic origin.
‡Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
§Entire state.

Population 65 Years of Age and Older in the Appalachian Region

Population aged 65 years and older numbered over 2.1 million persons in 1975 or 11.2 percent of the total population in the Appalachian Region (U.S. average, 10.5 percent). The growth rate in older population paralleled the nation's trend in the 1970–75 period (see Table 8). Northern Appalachia had the highest proportion of population 65 and over (11.9 percent) and a trend which followed the national average increase. In Central Appalachia, the proportion of older people grew less rapidly than in the nation, while in the southern subregion, with the lowest level, the growth was more rapid so that its 1975 proportion (10.3 percent) was catching up with the U.S. average. Both migration and aging affect the proportion of older people in any given area; inmigration of younger people will reduce the proportion, as well as outmigration of older persons.

Within the Region the proportion of persons aged 65 years and over drops generally from north to south, with the highest level in Appalachian Pennsylvania and the lowest in Appalachian Georgia. Variation *within* states is much greater, with a dozen counties having an older population equal to 15.8 percent or more of the total county population (see the map on page 27). Counties with above average levels of population aged 65 and over tend to be rural plateau or mountain counties, rural southern counties or urban and metropolitan counties which have experienced decades of relative economic stagnation and outmigration. Some of them are retirement counties which have attracted older inmigrants. At the opposite extreme are the counties with few older people, which include counties with large proportions of college population, suburban inmigration or counties with recent economic growth and inmigration. A few of these "more youthful" areas have relatively high fertility rates as a factor. As a consequence of the wide variations within the Region, the proportion of persons aged 65 years and older is quite diversified. Only one state lacks at least one county with above average levels, and only one state lacks at least one county with low levels.

Table 8

Population 65 Years of Age and Older Appalachian Region and United States 1970–1975

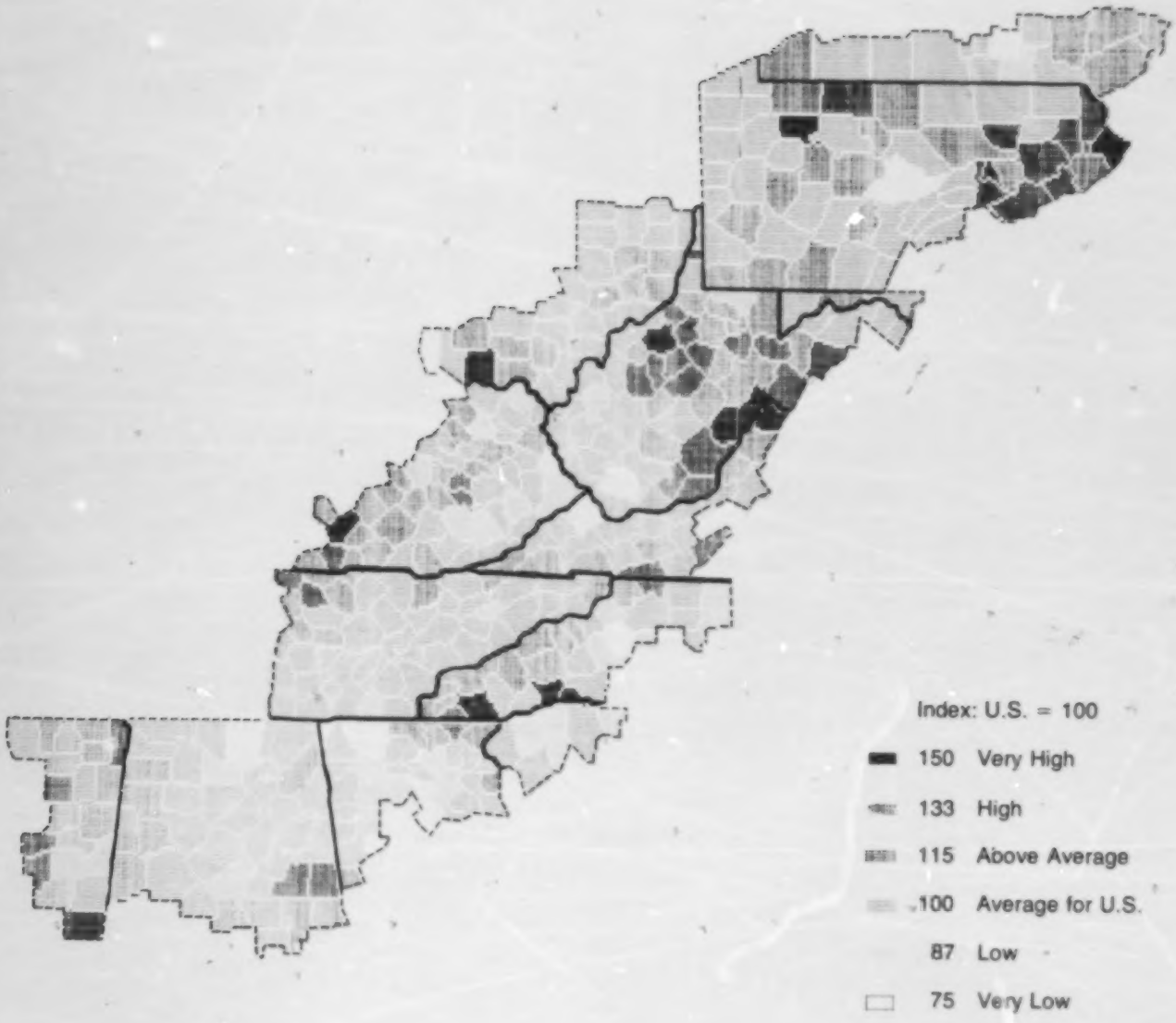
Geographical Division	Population July 1, 1975* Total (thousands)	Population July 1, 1975* Aged 65 and Older (thousands)	Population July 1, 1975* Aged 65 and Older (percent)	Population April 1, 1970† Aged 65 and Older (thousands)	Population April 1, 1970† Aged 65 and Older (percent)	Population Change 1970‡ Aged 65 and Older (thousands)	Population Change 1970‡ Aged 65 and Older (percent)
United States (48 states and Washington, D.C.)	**213,051.5**	**22,400.3**	**10.5%**	**19,978.6**	**9.8%**	**2,421.7**	**12.1%**
Appalachian Region	**19,026.7**	**2,130.3**	**11.2%**	**1,906.8**	**10.5%**	**223.4**	**11.7%**
Subregions							
Northern Appalachia	**9,860.4**	**1,172.4**	**11.9%**	**1,085.3**	**11.2%**	**87.1**	**8.0%**
Maryland	213.7	25.3	11.8	22.7	10.8	2.6	11.6
New York	1,079.1	123.3	11.4	115.7	10.9	7.6	6.6
Ohio	1,184.0	134.4	11.3	127.6	11.3	6.8	5.3
Pennsylvania	5,932.8	716.0	12.1	660.5	11.1	55.5	8.4
West Virginia	1,450.9	173.5	12.0	158.9	11.3	14.6	9.2
Central Appalachia	**1,886.0**	**207.5**	**11.0%**	**186.8**	**10.7%**	**20.6**	**11.1%**
Kentucky	952.3	105.2	11.0	96.5	11.0	8.7	9.0
Tennessee	365.4	42.9	11.7	36.4	10.9	6.5	17.8
Virginia	216.3	22.0	10.2	19.1	9.7	2.9	15.1
West Virginia	352.0	37.4	10.6	34.8	10.4	2.6	7.4
Southern Appalachia	**7,280.2**	**750.4**	**10.3%**	**634.7**	**9.4%**	**115.7**	**18.2%**
Alabama	2,242.5	236.9	10.6	202.8	9.5	34.2	16.8
Georgia	956.4	84.8	8.9	70.0	8.6	14.8	21.1
Mississippi	446.5	51.8	11.6	45.7	10.9	6.1	13.2
North Carolina	1,119.4	122.0	10.9	102.4	9.9	19.6	19.1
South Carolina	726.0	64.9	8.9	52.7	8.0	12.2	23.1
Tennessee	1,504.8	155.7	10.3	131.3	9.4	24.4	18.6
Virginia	284.7	34.3	12.0	29.7	10.9	4.6	15.4
State Parts§							
Tennessee	1,870.2	198.6	10.6%	167.7	9.7%	30.9	18.4%
Virginia	501.0	56.3	11.2	48.8	10.4	7.4	15.3
West Virginia"	1,802.9	210.9	11.7	193.7	11.1	17.2	8.9

Source: Estimates for 1975 and revised data for 1970 are U.S. Bureau of Census data provided and published by the Administration on Aging, U.S. Department of Health, Education and Welfare, Washington, D.C. 20201.

*U.S. Bureau of Census provisional population estimates for July 1, 1975.
† Revised 1970 U.S. Bureau of Census population data.
‡ Change between April 1, 1970, and estimated July 1, 1975, population after post-census late corrections to 1970 population totals.
§Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
"Entire state.

Index of Population 65 Years of Age and Older as a Percent of Total Population 1975

Appalachian Region by County



Source: U.S. Bureau of Census 1975 population estimates provided by the U.S. Department of Health, Education and Welfare, Administration on Aging. Virginia independent cities are combined with counties. Map produced by composite mapping system developed by the U.S. Department of Commerce, Economic Development Administration and furnished to the Appalachian Regional Commission.
Note: Water bodies and areas with less than 7.9 percent population 65 years of age and older shown as blank.

Economic Development

Bill Brower

Labor Force, Employment and Unemployment Trends in the Appalachian Region

Between 1970 and 1975 the Appalachian civilian labor force grew from 7.1 to 7.9 million persons, a rise of 10 percent, while the labor force in the non-Appalachian parts of the 12 states grew by 9 percent. This was less than the growth rate nationally (12 percent). See Tables 9 and 10 on pages 30 and 31 and Figure 1 on page 32.

Relatively consistent trends in labor force, employment and unemployment in both Region and nation in the years 1970–74 were broken sharply by the recession year 1975. While the labor force continued to grow, employment dropped and unemployment increased sharply. The employed labor force in Appalachia increased by 9 percent (1970–74) but dropped by 2 percent (1974–75) so that the number of unemployed for the year 1975 jumped by 62 percent above the 1974 average (the U.S. increase was 54 percent). Central Appalachia, with a 20-percent increase in employment (1970–74), fell by 2 percent (1970–75); Southern Appalachia gained by 11 percent but fell by 3 percent in the recession year; while Northern Appalachia was most static, increasing by only 6 percent in the four-year period but dropping by 1.5 percent in 1974–75. The number of unemployed in the Region increased from an average of 421,700 in 1974 to 682,000 in 1975.

The unemployment rate in the Region at 5.4 percent in both 1970 and 1974 was higher than the U.S. rate in 1970 and lower in 1974. However, by 1975 the regional unemployment rate (8.7 percent) was again higher than the U.S. level (8.45 percent). In 10 of the 12 states with non-Appalachian portions, the 1975 unemployment rate was higher in the Appalachian part; in South Carolina it was the same and only in New York State was the unemployment rate higher for the non-Appalachian portion.

The most recent data for the year 1976 reveal that the Appalachian Region had an average unemployment rate of 7.6 percent. Unemployment rates vary widely by county. Preliminary estimates for these unemployment rates are shown on the maps on pages 34 and 35.

Labor force participation (ratio of labor force to population) is markedly lower in Central Appalachia than in the Region generally; only in Southern Appalachia is the participation comparable to the national average level.

Figure 2 on page 33 shows growth trends in major industrial group employment from 1965 to 1973.

Table 9

Civilian Resident Labor Force, Employment and Unemployment Appalachian Region and United States 1970–1975

Geographical Division	1975 Average				1970 Average			
	Civilian Labor Force (thousands)	Employed Persons (thousands)	Unemployed Persons (thousands)	Labor Force Unemployment (percent)	Civilian Labor Force (thousands)	Employed Persons (thousands)	Unemployed Persons (thousands)	Labor Force Unemployment (percent)
United States	**92,613.1**	**84,783.**	**7,830.**	**8.5%**	**82,715.**	**78,627.**	**4,088.**	**4.9%**
Appalachian Region	**7,850.6**	**7,168.5**	**682.0**	**8.7%**	**7,107.9**	**6,723.1**	**384.8**	**5.4%**
Subregions								
Northern Appalachia	**4,047.5**	**3,688.9**	**358.6**	**8.9%**	**3,772.6**	**3,564.1**	**208.5**	**5.5%**
Maryland	88.7	79.9	8.8	9.9	80.9	75.9	5.0	6.2
New York	462.3	422.4	40.0	8.6	423.3	401.7	21.6	5.1
Ohio	466.9	419.6	47.3	10.1	419.6	392.1	27.5	6.5
Pennsylvania	2,489.5	2,266.6	222.9	9.0	2,325.3	2,202.5	122.8	5.3
West Virginia	540.0	500.4	39.6	7.4	523.5	492.0	31.6	6.0
Central Appalachia	**685.9**	**632.3**	**53.6**	**7.8%**	**559.4**	**520.2**	**39.2**	**7.0%**
Kentucky	353.4	326.6	26.8	7.6	275.0	254.4	20.5	7.5
Tennessee	141.2	125.1	16.1	11.4	124.6	116.4	8.3	6.6
Virginia	81.6	76.7	4.9	6.0	62.3	58.0	4.3	6.9
West Virginia	109.8	103.9	5.9	5.4	97.6	91.4	6.1	6.3
Southern Appalachia	**3,117.2**	**2,847.4**	**269.8**	**8.7%**	**2,775.9**	**2,638.8**	**137.1**	**4.9%**
Alabama	910.9	387.1	73.8	8.1	849.8	797.5	52.3	6.2
Georgia	400.0	362.7	37.3	9.3	354.6	341.2	13.3	3.8
Mississippi	185.2	168.4	16.9	9.1	155.7	147.8	7.9	5.1
North Carolina	522.6	473.8	48.8	9.3	448.1	427.9	20.2	4.5
South Carolina	322.0	293.9	28.1	8.7	283.1	273.0	10.1	3.7
Tennessee	648.4	594.7	53.6	8.3	575.2	546.8	28.4	4.9
Virginia	128.1	116.8	11.3	8.8	109.4	104.5	4.9	4.5
State Parts*								
Tennessee	789.6	719.8	69.8	8.8%	699.8	663.2	36.6	5.2%
Virginia	209.7	193.5	16.2	7.7	171.7	162.5	9.2	5.4
West Virginia†	649.8	604.3	45.5	7.0	621.1	583.4	37.7	6.1

Source: National data from U.S. Department of Labor, Bureau of Labor Statistics, based on U.S. Bureau of Census household surveys. State data from individual state reporting agencies; 1975 state data are preliminary, adjusted to national and state benchmarks from 1975 census household surveys. 1970 data for Appalachian Virginia estimated by the Appalachian Regional Commission.

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
†Entire state.

Table 10

Civilian Resident Labor Force, Employment and Unemployment Non-Appalachian States, Appalachian States and Non-Appalachian State Parts 1970–1975

Geographical Division	1975 Average				1970 Average			
	Civilian Labor Force (thousands)	Employed Persons (thousands)	Unemployed Persons (thousands)	Labor Force Unemployment (percent)	Civilian Labor Force (thousands)	Employed Persons (thousands)	Unemployed Persons (thousands)	Labor Force Unemployment (percent)
Non-Appalachian States (37 states and Washington, D.C.)	**58,995**	**54,001**	**4,993**	**8.46%**	**52,041**	**49,363**	**2,678**	**5.15%**
13 Appalachian States*	**33,618**	**30,782**	**2,837**	**8.44%**	**30,674**	**29,264**	**1,410**	**4.6 %**
Non-Appalachian State Parts†	**25,746**	**23,596**	**2,150**	**8.35%**	**23,566.2**	**22,541.0**	**1,025.2**	**4.4 %**
Northern States	**15,795**	**14,406**	**1,390**	**8.8 %**	**14,957.4**	**14,298.8**	**658.6**	**4.4 %**
Maryland	1,753	1,635	118	6.7	1,521.5	1,473.1	48.4	3.2
New York	7,206	6,516	690	9.6	6,983.7	6,675.3	308.4	4.4
Ohio	4,259	3,876	383	9.0	3,958.4	3,750.9	207.5	5.2
Pennsylvania	2,577	2,379	198	7.7	2,493.8	2,399.5	94.3	3.8
Central States	**4,113**	**3,828**	**285**	**6.9 %**	**3,501.6**	**3,366.8**	**134.8**	**3.9 %**
Kentucky	1,055	979	76	7.2	943.3	902.5	40.9	4.3
Tennessee	1,021	940	81	8.0	915.0	873.8	41.2	4.5
Virginia	2,037	1,909	128	6.3	1,643.3	1,590.5	42.8	3.2
Southern States	**5,838**	**5,362**	**476**	**8.15 %**	**5,107.1**	**4,875.4**	**231.8**	**4.5 %**
Alabama	529	492	37	7.0	497.2	469.5	27.7	5.6
Georgia	1,743	1,595	148	8.4	1,511.4	1,448.8	62.7	4.1
Mississippi	719	671	48	6.6	646.7	617.0	29.7	4.6
North Carolina	1,988	1,820	168	8.5	1,735.9	1,662.1	73.8	4.3
South Carolina	858	783	75	8.7	715.9	678.0	37.9	5.3

Source: National data from U.S. Department of Labor, Bureau of Labor Statistics, based on U.S. Bureau of Census household surveys. State data from individual state reporting agencies, 1975 state data are preliminary, adjusted to national and state benchmarks from 1975 census household surveys. 1970 data for non-Appalachian Virginia estimated by the Appalachian Regional Commission.

*Entire state.
†Entire state of West Virginia is included in data for Appalachian states in Table 9.

Figure 1

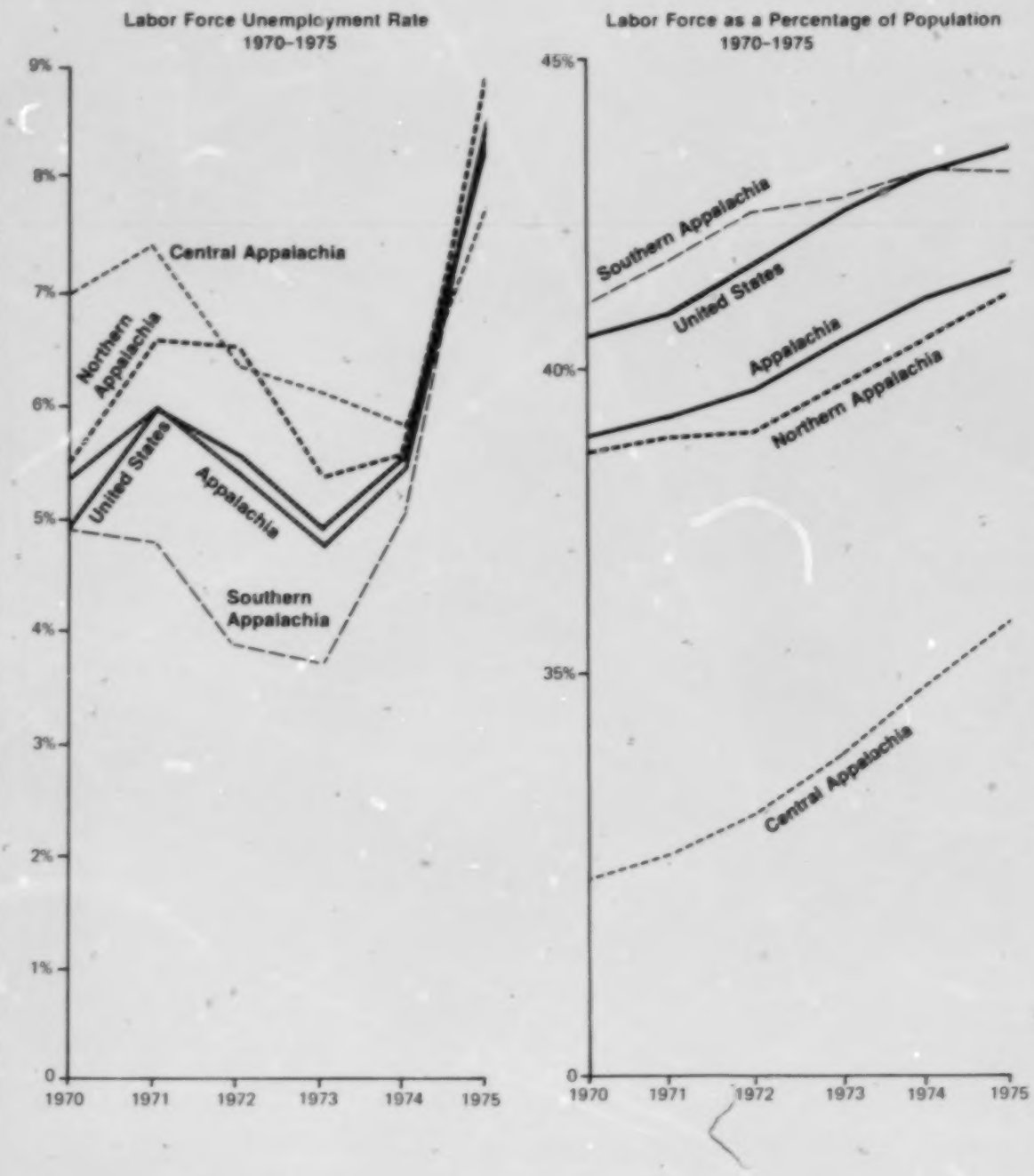
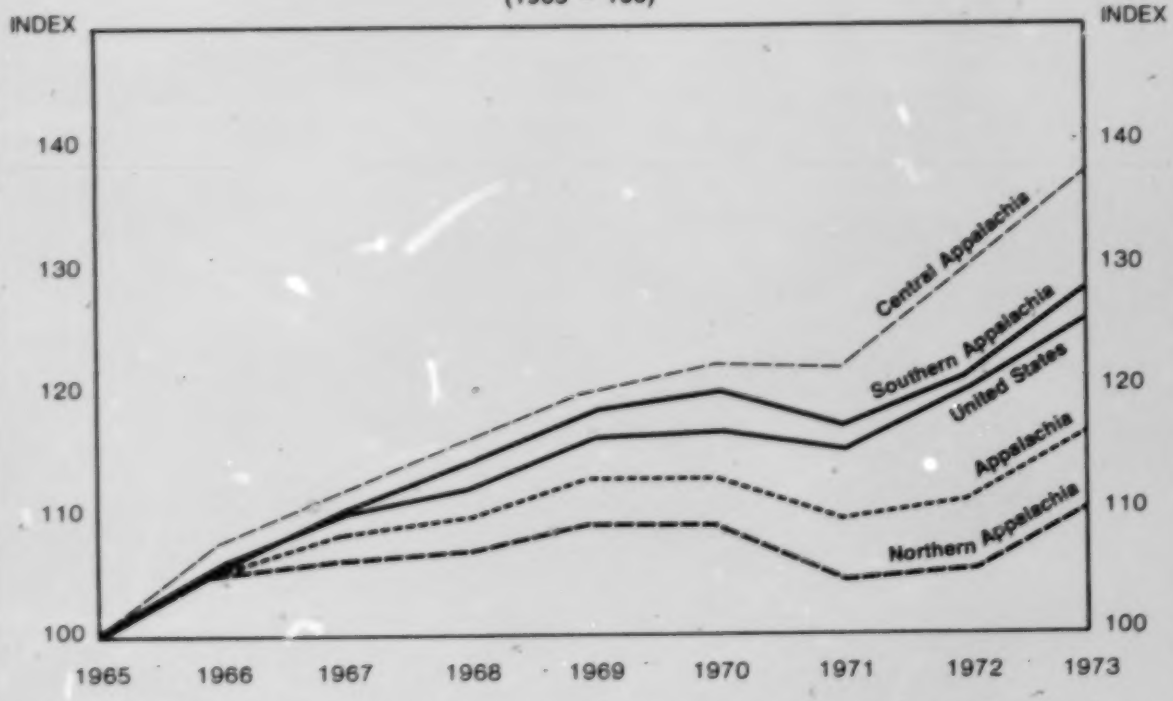

Labor Force Unemployment Rate
1970–1975
9%
8%
7%
6%
5%
4%
3%
2%
1%
0
1970
1971
1972
1973
1974
1975
Central Appalachia
Northern Appalachia
United States
Appalachia
Southern Appalachia
Labor Force as a Percentage of Population
1970–1975
45%
40%
35%
0
1970
1971
1972
1973
1974
1975
Southern Appalachia
United States
Appalachia
Northern Appalachia
Central Appalachia

Figure 2

Growth Trends in Major Industrial Group Employment 1965–1973

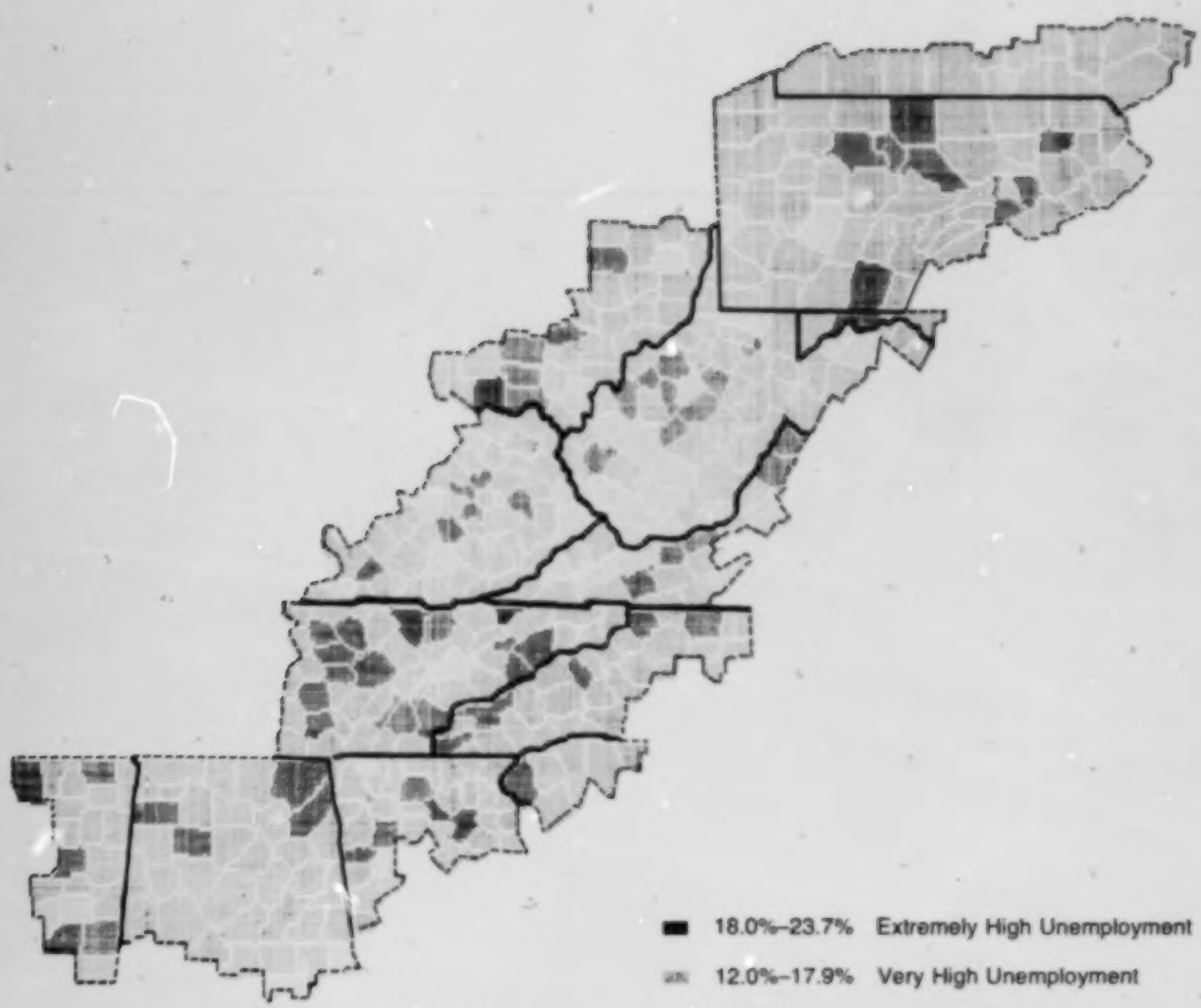
(1965 = 100)



Major Industrial Group: These data represent only employment covered by the Federal Insurance Contributions Act. This includes covered wage and salary employment of private nonfarm employers and all covered employment of religious, charitable, educational and other nonprofit organizations. It does not include government employees, self-employed individuals, farm workers, domestic service workers, railroad employees or employment on oceanborne vessels. Data refer to mid-March of the calendar year and represent covered employment in the first quarter only.

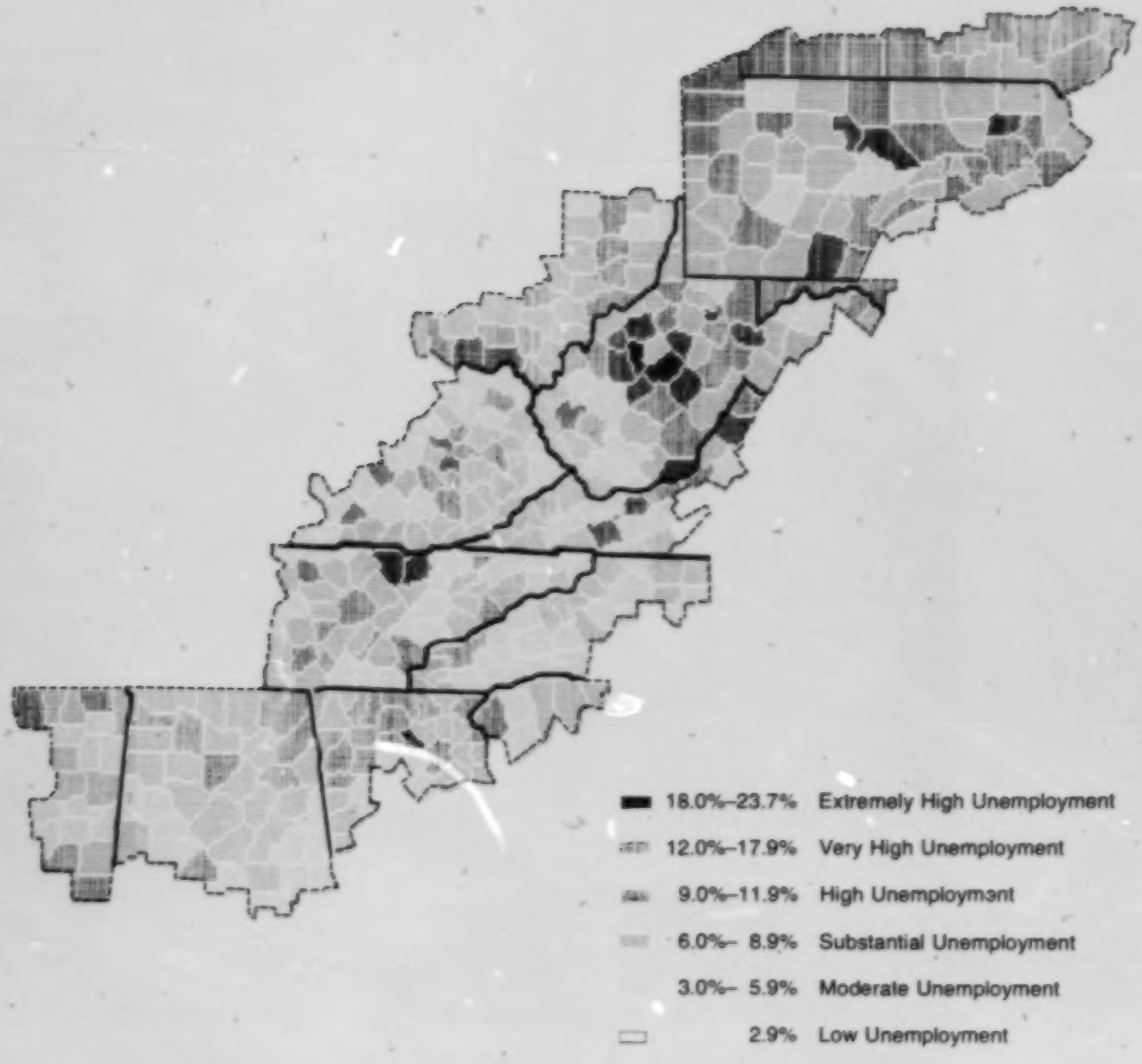
Source: *County Business Patterns*, U.S. Department of Commerce, Bureau of the Census.

Civilian Resident Labor Force Unemployment
Preliminary 1975 Rates
Appalachian Region by County



Source: State data from individual state reporting agencies. 1975 state data are preliminary, adjusted to national and state benchmarks from 1975 census household surveys. Virginia independent cities are combined with counties. Map produced by composite mapping system developed by the U.S. Department of Commerce, Economic Development Administration and furnished to the Appalachian Regional Commission.
Note: Water bodies shown as blank.

Civilian Resident Labor Force Unemployment
Preliminary 1976 Rates
Appalachian Region by County



Source: State data from individual state reporting agencies. 1976 state data are preliminary, adjusted to national and state benchmarks from 1976 census household surveys. Virginia independent cities are combined with counties. Map produced by composite mapping system developed by the U.S. Department of Commerce, Economic Development Administration and furnished to the Appalachian Regional Commission.
Note: Water bodies shown as blank.

Appalachian Employment by Industry

Civilian employment in the Appalachian Region numbered 6.5 million persons in 1970, or 8.5 percent of the national total, slightly less than the Region's share (9.0 percent) of U.S. population. Manufacturing, the largest industry group, was even more dominant in the Region than in the nation, with nearly one-third of regional employment (see Figure 3). In Southern Appalachia this share was 37 percent (see Figure 4). Within manufacturing, two industries (textiles and apparel, and primary metals) had a concentration of employment between 2.7 and 2.8 times the national ratio. Only one other industry, mining, had a comparable level of concentration, based upon the coal mining industry. Only one other nonmanufacturing industry, railroads (with railway express service) had a concentration level as high as 1.5 times the U.S. average. See Figure 5 on page 39.

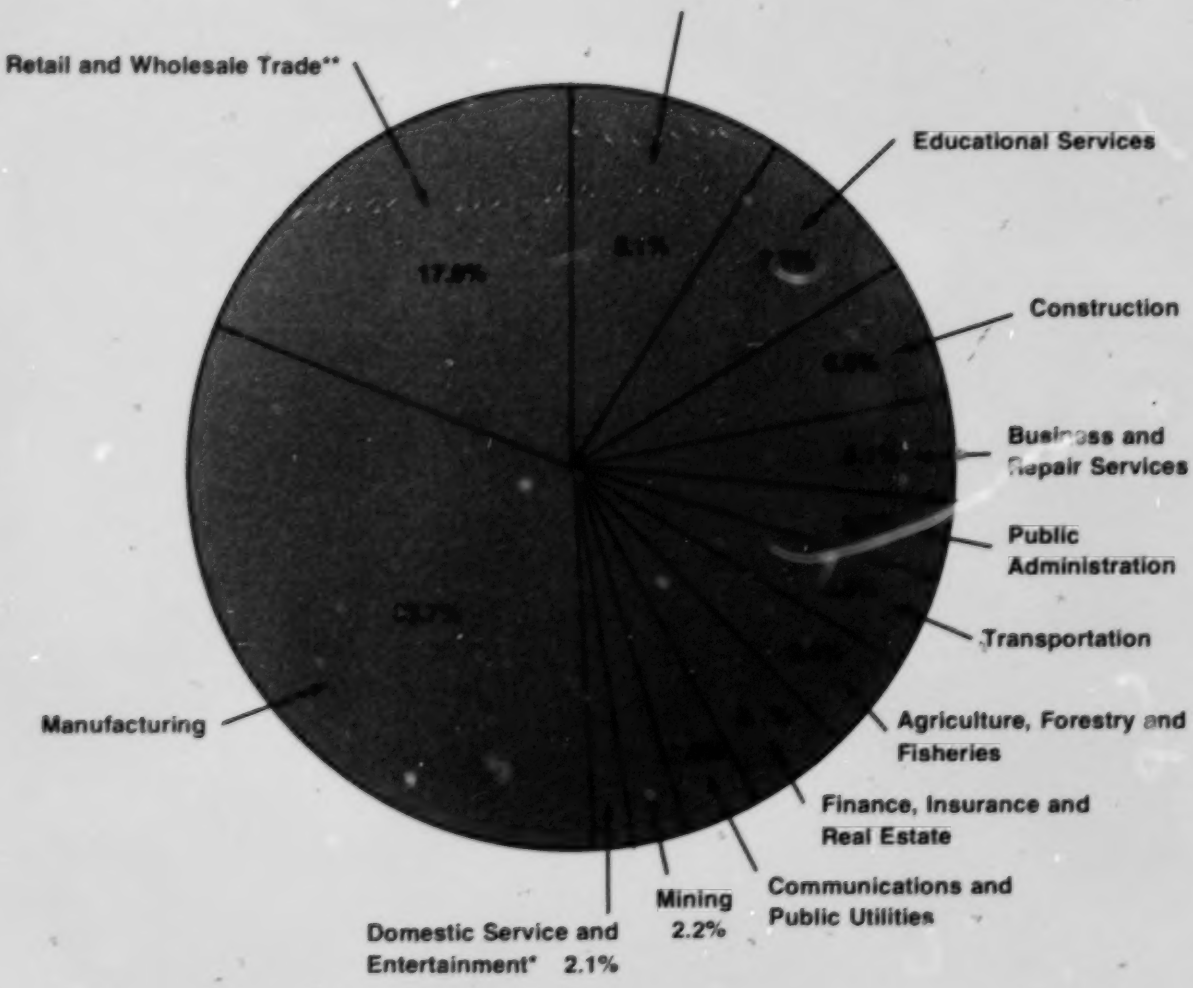
Central Appalachia, with 9.6 percent of the Region's population, had in 1970 7.6 percent of its employed population and only 4.8 percent of manufacturing employment, but over 36 percent of its mining employment (primarily coal mining) and 16 percent of agricultural employment (see Table 11). During the 1960s, in Central Appalachia agricultural employment dropped by more than one-half and mining by 30 percent so that much of Central Appalachia suffered depressed conditions, though its manufacturing employment increased by 35 percent (not enough to offset the losses).

The Region as a whole increased its employed labor force by 11 percent between 1960 and 1970, a very slow rate of growth compared with the nation (18.5 percent). The increase for the subregions was: Northern, 6.5 percent; Central, 4.2 percent; and Southern, 20.0 percent. The growth of manufacturing in the Region was about the same as for total civilian employment (11 percent) during the 1960s.

Figure 3

Percent of Civilian Appalachian Labor Force Employed by Industry Division

1970



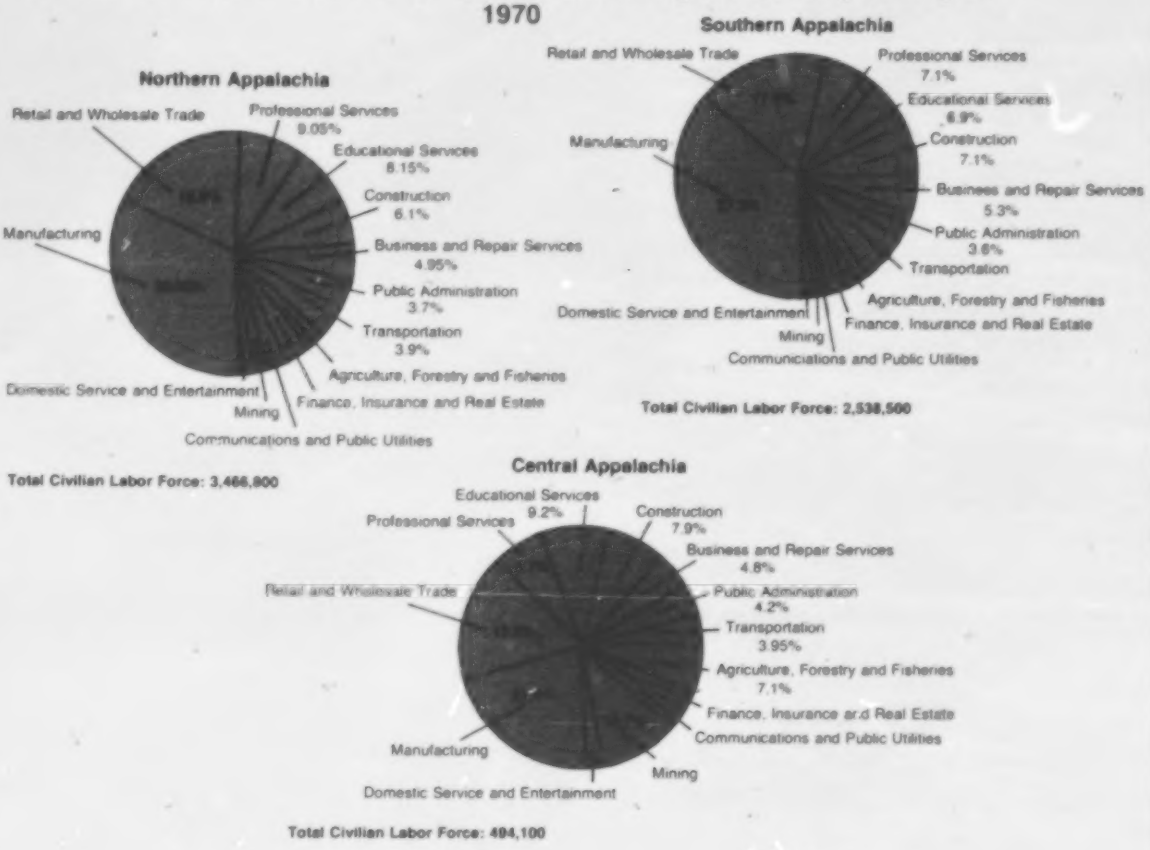
Total Civilian Labor Force: 6,499,200

All labor force figures include civilian labor force only.

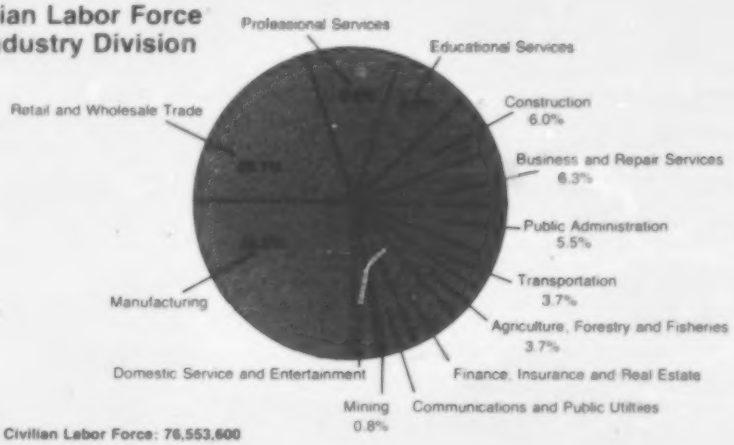
*Domestic service in private households, 1.6%; entertainment and recreation services, 0.5%.
**Retail trade, 14.7%; wholesale trade, 3.2%.

Figure 4

Percent of Civilian Labor Force Employed In Industry Divisions by Subregion 1970



Percent of Civilian Labor Force Employed by Industry Division United States 1970



Total Civilian Labor Force: 76,553,600

Figure 5

Civilian Employed Persons in Manufacturing Industry Groups as a Percent of Total Employment 1970

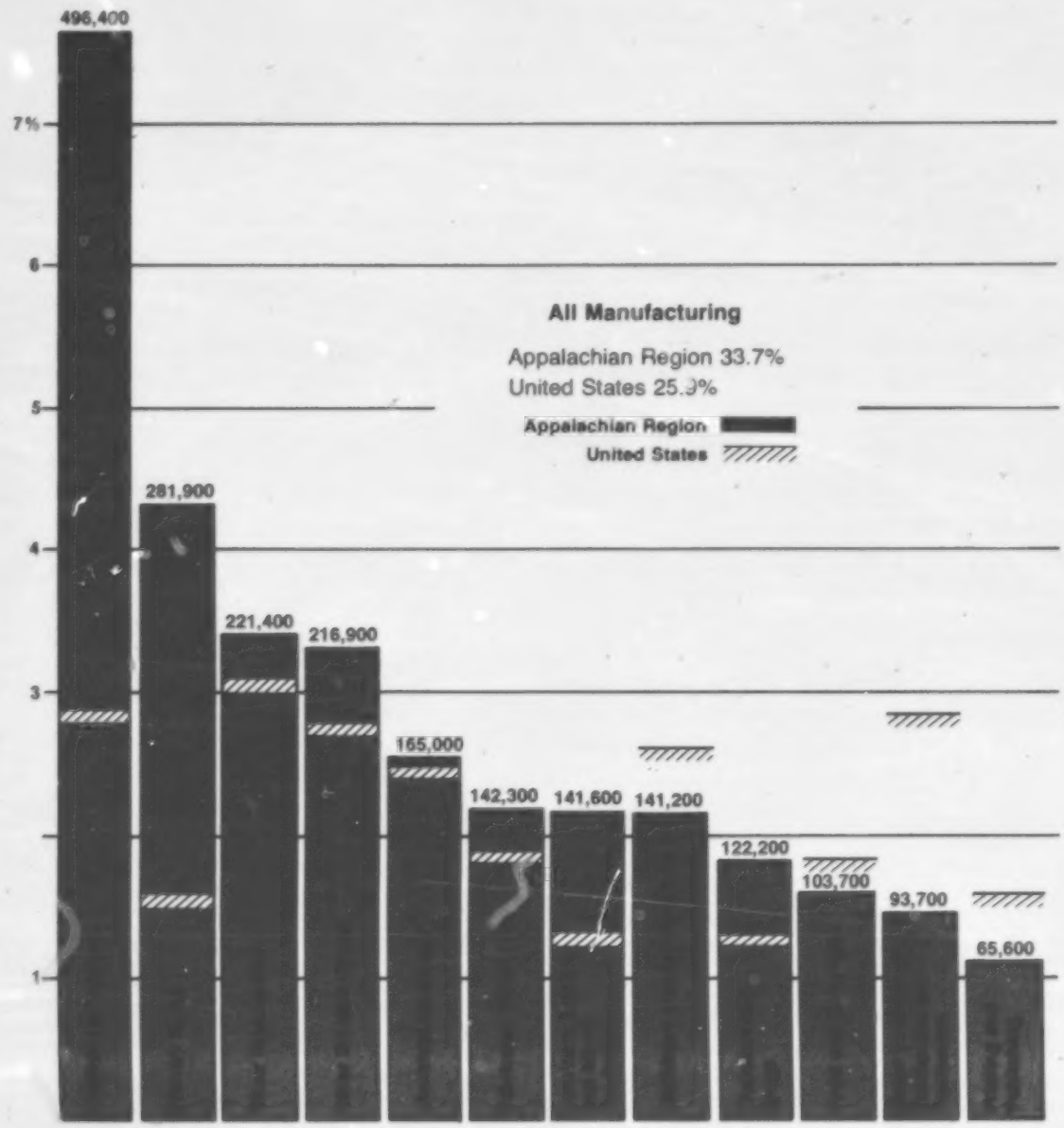


Table 11

Civilian Employed Persons by Major Industrial Group
Appalachian Region and Subregions
1970

	Appalachian Region	Northern Appalachia	Central Appalachia	Southern Appalachia
Total Employed Civilian Population	**6,499,200**	**3,366,800**	**494,100**	**2,538,500**
Manufacturing	2,191,700	1,138,800	105,900	947,000
Retail and Wholesale Trade	1,159,000	643,400	84,300	431,300
Professional Services	527,800	313,700	33,100	181,000
Educational Services	502,800	282,500	45,500	174,700
Business, Repair and Personal Services	328,900	171,600	23,700	133,500
Construction	430,600	211,300	39,200	180,200
Public Administration	241,400	129,800	20,900	90,700
Transportation	225,800	135,200	19,500	71,200
Agriculture, Forestry and Fisheries	217,300	89,500	35,100	92,700
Finance, Insurance and Real Estate	203,000	112,700	10,100	80,100
Communications and Public Utilities	188,600	101,600	13,600	73,500
Mining	145,100	76,400	52,800	15,900
Other (Domestic Service and Entertainment)	137,200	60,200	10,400	66,600

Civilian Employed Persons by Industry
Appalachian Region
1970

	Appalachian Region
Retail and Wholesale Trade	
Wholesale Trade	205,600
Food, Bakery and Dairy Stores	167,400
Eating and Drinking Places	153,100
General Merchandise Retailing	153,800
Automotive Retailing and Service Stations	156,700
Other Retail Trade	322,400
Professional Services	
Hospitals	218,200
Other Medical and Health Services	103,400
Welfare, Religious and Nonprofit Membership Organizations	91,600
Legal, Engineering and Miscellaneous Professional Services	114,600
Educational Services	
Public Schools and Colleges	358,900
Private Schools and Colleges	122,900
Other Education Services	21,000
Business Repair and Personal Services	
Business Services	60,200
Repair Services	85,300
Personal Services (hotels, motels, barber and beauty shops, etc.)	183,300
Finance, Insurance and Real Estate	
Banking and Credit Agencies	82,100
Insurance, Real Estate and Other Finance	120,900
Communications and Public Utilities	
Communications	68,900
Utilities and Sanitary Services	119,700
Domestic Service	101,500
Entertainment and Recreation Services	35,700
Transportation	
Railroads and Railway Express Service	79,300
Trucking Services and Warehousing	94,700
Other Transportation	51,900

Source: U.S. Bureau of Census, 1970 Census of Population.

Personal Income in the Appalachian Region

Total personal income in Appalachia increased from $39 billion in 1965 to $85 billion in 1974, but because of both inflation and population change it is more instructive to study relative levels.

Regional per capita income levels gained on the national level: from 1965 to 1974 they increased from 78.2 percent to 82.6 percent of the U.S. average level, with nearly 2 percentage points of this gain in the 1970–74 period (see Table 12). All subregions shared in this relative growth, but the advance was quite slow in Northern Appalachia, while the most rapid gains were in Central Appalachia. Southern Appalachia did better than the regional average (see Figure 6). All state areas excepting Appalachian New York were at higher relative levels of per capita income in 1974 than in 1965.

No Appalachian state area equaled the U.S. average (and only a few counties did) in 1974, but the range in 1974 among the state parts from 92 percent in Pennsylvania to 62 percent of the U.S. per capita level in Appalachian Kentucky represents a narrowing of the gap within the Region since 1965 (New York, 90 percent; Appalachian Kentucky, 49.5 percent of U.S.).

Non-Appalachian state areas generally have significantly higher per capita income levels than their Appalachian counterparts, with the widest intrastate gaps in the northern and central areas and the least differences in the southern areas (where two state areas have lower levels in their non-Appalachian portions). However, the North has lagging trends (slower gain in per capita levels than the nation) outside of Appalachia, while in the South the non-Appalachian areas gained more rapidly, particularly in the 1965–70 period. See Table 13. There is a steady drop in per capita income from the North to the South in the non-Appalachian state areas, while inside the Region Central Appalachia has by far the lowest income levels.

Table 12

Total Personal Income, per Capita Data and Relative Levels Appalachian Region and United States 1965–1974

Geographical Division	Population July 1, 1974* (thousands)	Total Personal Income 1974 (millions)	Total Personal Income per Capita 1974 (dollars)	1970 (dollars)	1965 (dollars)	Percent of U.S. Average 1974	1970	1965
United States	**211,390**	**$1,151,721**	**$5,448**	**$3,966**	**$2,785**	**100.0%**	**100.0%**	**100.0%**
Appalachian Region	**18,915**	**$ 85,084**	**$4,498**	**$3,203**	**$2,178**	**82.6%**	**80.8%**	**78.2%**
Subregions								
Northern Appalachia	**9,872**	**$ 47,477**	**$4,809**	**$3,483**	**$2,412**	**88.3%**	**87.8%**	**86.6%**
Maryland	213	993	4,659	3,316	2,255	85.5	83.6	81.0
New York	1,078	5,200	4,822	3,640	2,505	88.5	91.8	89.9
Ohio	1,179	5,010	4,248	3,101	2,128	78.0	78.2	76.4
Pennsylvania	5,958	29,817	5,004	3,606	2,498	91.8	90.9	89.7
West Virginia	1,442	6,457	4,476	3,176	2,227	82.2	80.1	80.0
Central Appalachia	**1,849**	**$ 6,553**	**$3,544**	**$2,342**	**$1,447**	**65.0%**	**59.0%**	**52.0%**
Kentucky	930	3,137	3,372	2,200	1,378	61.9	55.5	49.5
Tennessee	360	1,257	3,494	2,373	1,476	64.1	59.8	53.0
Virginia	211	785	3,725	2,440	1,366	68.4	61.5	49.0
West Virginia	348	1,373	3,943	2,622	1,641	72.4	66.1	58.9
Southern Appalachia	**7,194**	**$ 31,055**	**$4,317**	**$3,024**	**$2,032**	**79.2%**	**76.3%**	**73.0%**
Alabama	2,219	9,701	4,372	3,049	2,092	80.2	76.9	75.1
Georgia	943	3,893	4,126	2,974	1,944	75.7	75.0	69.8
Mississippi	444	1,565	3,528	2,431	1,474	64.8	61.3	52.9
North Carolina	1,103	4,966	4,504	3,149	2,090	82.7	79.4	75.0
South Carolina	719	3,297	4,584	3,251	2,172	84.1	82.0	78.0
Tennessee	1,485	6,552	4,412	3,065	2,082	81.0	77.3	74.8
Virginia	281	1,082	3,846	2,652	1,680	70.6	66.9	60.3
State Parts†								
Tennessee	1,845	$ 7,809	$4,234	$2,931	$1,959	77.7%	73.9%	70.3%
Virginia	492	1,867	3,794	2,563	1,543	69.6	64.6	55.4
West Virginia‡	1,791	7,830	4,373	3,069	2,109	80.3	77.4	75.7

Source: U.S. Department of Commerce, Bureau of Economic Analysis, special tabulations for Appalachian Regional Commission. Per capita income adjusted to conform to Bureau of Census July 1, 1970, estimates of population available for states.

Note: Total personal income (TPI) includes nonmoney imputed income, including net rental value of owner-occupied homes; payments in kind; value of food consumed on farms; food stamps, etc. TPI income in 1972 and 1969 for the U.S. was 20 percent higher (expressed in dollars) than money income (census data series).

*U.S. Bureau of Census provisional population estimates for July 1, 1974.
†Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
‡Entire state.

Figure 6

Total Personal Income per Capita and Income as Percent of United States level Appalachian Region and United States

1965–1974

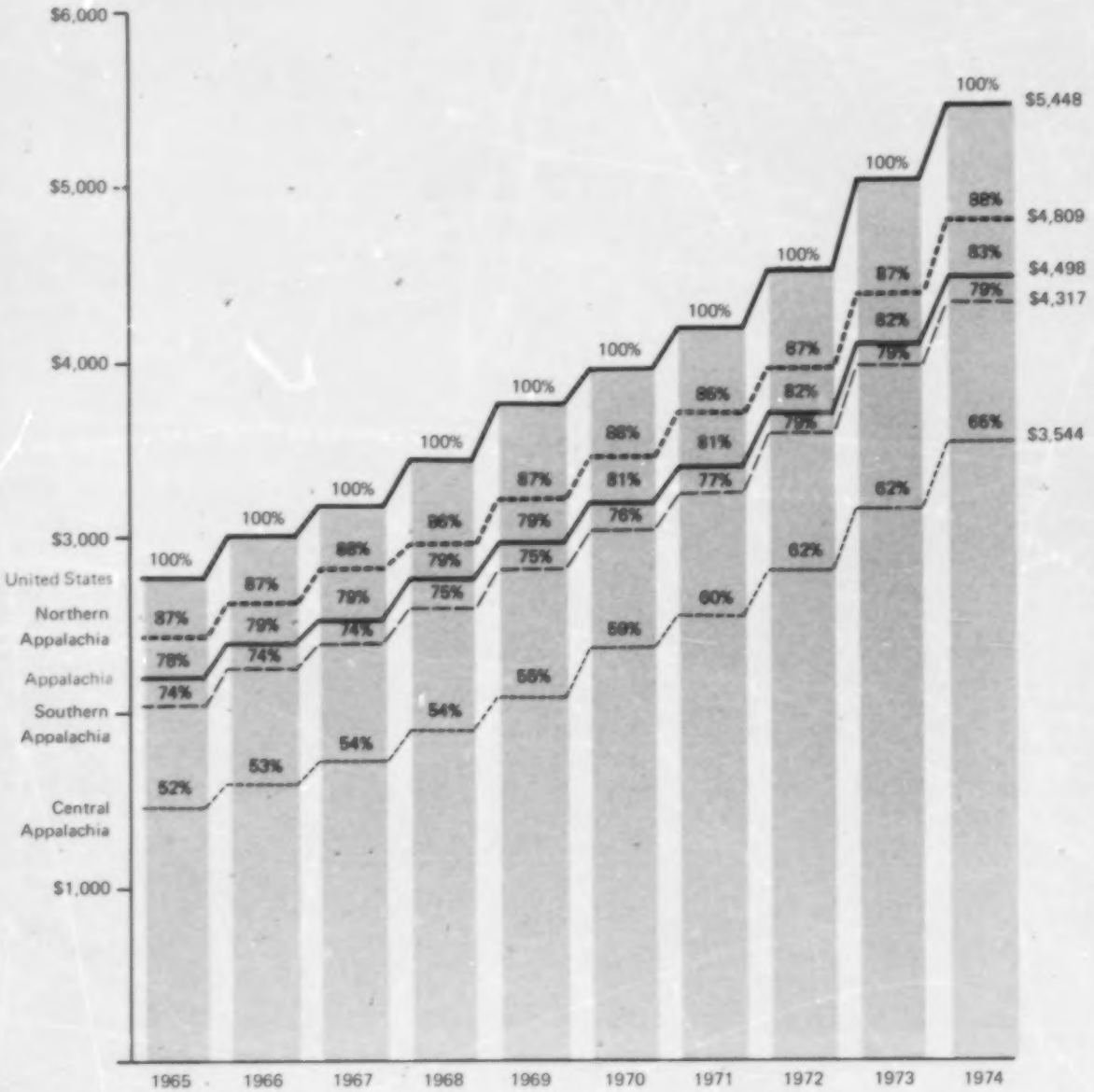


Table 13

Total Personal Income, per Capita Data and Relative Levels United States, Appalachian States and Non-Appalachian State Parts 1965–1974

Geographical Division	Population July 1, 1974* (thousands)	Total Personal Income 1974 (dollars)	Total Personal Income per Capita 1974 (dollars)	1970 (dollars)	1965 (dollars)	Percent of U.S. Average 1974	1970	1965
United States	**211,390**	**$1,151,721**	**$5,448**	**$3,966**	**$2,785**	**100.0%**	**100.0%**	**100.0%**
13 Appalachian States†	**77,891**	**$ 411,091**	**$5,278**	**$3,851**	**$2,664**	**96.9%**	**97.1%**	**95.7%**
Non-Appalachian State Parts‡	**58,976**	**$ 326,014**	**$5,528**	**$4,055**	**$2,822**	**101.5%**	**102.3%**	**101.3%**
Northern States	**36,348**	**$ 218,512**	**$6,012**	**$4,494**	**$3,205**	**110.3%**	**113.3%**	**115.1%**
Maryland	3,881	23,350	6,017	4,365	2,995	110.4	110.0	107.5
New York	17,032	106,294	6,241	4,777	3,410	114.5	120.5	122.5
Ohio	9,558	54,219	5,673	4,127	2,986	104.1	104.1	107.2
Pennsylvania	5,877	34,648	5,896	4,342	3,076	108.2	109.5	110.5
Central States	**9,127**	**$ 47,060**	**$5,156**	**$3,593**	**$2,433**	**94.6%**	**90.6%**	**87.4%**
Kentucky	2,427	11,774	4,852	3,455	2,386	89.1	87.1	85.7
Tennessee	2,285	10,981	4,806	3,269	2,198	88.2	82.4	78.9
Virginia	4,416	24,305	5,504	3,841	2,587	101.0	96.8	92.9
Southern States	**13,502**	**$ 60,443**	**$4,477**	**$3,133**	**$2,013**	**82.2%**	**79.0%**	**72.3%**
Alabama	1,358	5,374	3,957	2,786	1,814	72.6	70.2	65.1
Georgia	3,939	19,303	4,901	3,438	2,241	89.9	86.7	80.5
Mississippi	1,880	7,274	3,869	2,670	1,731	71.0	67.3	62.2
North Carolina	4,260	19,786	4,645	3,277	2,094	85.2	82.6	75.2
South Carolina	2,065	8,706	4,217	2,899	1,823	77.4	73.1	65.5

Source: U.S. Department of Commerce, Bureau of Economic Analysis, special tabulations for Appalachian Regional Commission. Per capita income adjusted to conform to Bureau of Census July 1, 1970, estimates of population available for states.

Note: Total personal income (TPI) includes money imputed income, including net rental value of owner-occupied homes; payments in kind; value of food consumed on farms; food stamps, etc. TPI income in 1972 and 1969 for the U.S. was 20 percent higher (expressed in dollars) than money income (census data series).

*U.S. Bureau of Census provisional population estimates for July 1, 1974.
†Entire state.
‡Entire state of West Virginia is included in data for Appalachian states in Table 12.

Constant Dollar Trends in per Capita Personal Income in the Appalachian Region

In constant 1972 dollars deflated by factors derived from the *1976 Economic Report of the President*, per capita personal income in the Appalachian Region rose by one-third over nine years, while nationally the growth was 26.5 percent. The equivalent change in total 1972 dollars per capita was almost the same for both (see Table 14 on page 46).

Every part of the Region exceeded the national rate of personal income growth excepting Appalachian New York. All state areas in Northern Appalachia lagged behind the Region's average growth rate, while all state areas in the central and southern subregions grew in income more rapidly. In terms of 1972 dollars, total personal income per capita in Appalachia grew from $2,877 in 1965 to $3,492 in 1970 and $3,849 in 1974 (the U.S. data: 1965, $3,685; 1970, $4,323; 1974, $4,662).

The actual "dollar gap" in 1972 dollars closed in all Central Appalachian state areas and in five Southern Appalachian state areas (excluding only Alabama and Georgia) and in Appalachian Maryland from 1965 to 1974. The most rapid rate of per capita income growth occurred in all Central Appalachian state parts and in Appalachian Mississippi. Nevertheless, four of these five areas remained at the lowest income levels in the Region (and below 70 percent of the U.S. average level), with only central Appalachian West Virginia pulling ahead of the rest over the period, with a dollar gain exceeded only by central Appalachian Virginia.

A closer look at the two periods 1965–70 and 1970–74 reveals that per capita income grew more rapidly (in dollar gain per year per capita) in the earlier period. The national gain of $128 annually per capita (in 1972 dollars) was equalled by the Central Appalachian growth ($128); the other subregions were close behind, with Northern Appalachia the lowest at $121. In the 1970–74 period the national per capita gain fell to two-thirds of its earlier level annually ($85); the northern subregion experienced a parallel drop (to $80), while Central Appalachia had a high growth ($120 per annum) and Southern Appalachia fell less rapidly than nation or Region to $99. Thus, the Region as a whole did better than the nation in the 1970–74 period, thanks primarily to trends in Central and Southern Appalachian per capita income.

Table 14

Per Capita Total Personal Income Estimated in 1972 Dollars
Appalachian Region and United States
1965–1974

Geographical Division	Total Personal Income 1974 (in 1972 dollars per capita)	Total Personal Income 1965 (in 1972 dollars per capita)	Change 1965–74 (in 1972 dollars per capita)	Percentage Change 1965–74
United States	**$4,662**	**$3,685**	**$ 977**	**26.5%**
Appalachian Region	**$3,849**	**$2,877**	**$ 972**	**33.8%**
Subregions				
Northern Appalachia	**$4,115**	**$3,191**	**$ 972**	**28.9%**
Maryland	3,987	2,984	1,003	33.6
New York	4,126	3,315	811	24.5
Ohio	3,635	2,816	819	29.1
Pennsylvania	4,282	3,305	976	29.5
West Virginia	3,830	2,947	883	30.0
Central Appalachia	**$3,032**	**$1,914**	**$1,118**	**58.4%**
Kentucky	2,886	1,823	1,063	58.3
Tennessee	2,989	1,953	1,037	53.1
Virginia	3,187	1,807	1,380	76.3
West Virginia	3,374	2,171	1,203	55.4
Southern Appalachia	**$3,694**	**$2,676**	**$1,108**	**38.0%**
Alabama	3,741	2,769	972	35.1
Georgia	3,530	2,572	958	37.3
Mississippi	3,019	1,950	1,069	54.8
North Carolina	3,854	2,766	1,088	39.3
South Carolina	3,923	2,874	1,048	36.5
Tennessee	3,776	2,755	1,021	37.0
Virginia	3,291	2,223	1,068	48.0
State Parts*				
Tennessee	$3,623	$2,592	$1,030	39.7%
Virginia	3,246	2,041	1,205	59.0
West Virginia†	3,742	2,790	951	34.1

Source: U.S. Department of Commerce, Bureau of Economic Analysis, special tabulations for Appalachian Regional Commission. Per capita data adjusted to 1972 dollars on deflation factors for disposable personal income and total government costs for balance. Estimated implicit deflators for 1972 dollars (1972 = 1.0000). For year 1965: .7557. For year 1974: 1.1687. Per capita data rounded to nearest dollar.

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
†Entire state.

Poverty Status of Population and Families in the Appalachian Region

Poverty status in the 1970 Census was measured by family or individual money income levels which fell below the "poverty level." In 1969 the poverty level for a nonfarm family of four with a male head under 65 was $3,715; for an individual male under 65 it was $1,975. The proportion of persons (including persons in families) in Appalachia with 1969 incomes below the poverty level was 32 percent higher than the U.S. proportion, but this had dropped from the 1959 level (1960 Census) of 41 percent higher. The proportion of Appalachian families below the poverty level in 1970 was 39 percent more than the U.S. average (see Table 15 on page 48).

The incidence of poverty in 1970 was least in Northern Appalachia and greatest in Central Appalachia, while in the southern subregion it was somewhat above the regional average. However, improvement relative to the United States in the 1960s was greatest in the South, while the northern subregion showed a modest improvement and in Central Appalachia the relative index worsened slightly though its absolute level in percentage of poverty population dropped by the greatest number of percentage points (see Table 16 and Figure 7). Poverty incidence was least in Appalachian Pennsylvania, though the state had the largest total number of persons below the low-income level. The state area with the greatest incidence of poverty was Kentucky (39 percent), but the actual number ranked fifth among Appalachian state areas.

In Appalachia, as in the nation, low-income population was concentrated among certain groups: blacks and other minorities; older persons; and rural population. Table 15 shows the incidence of poverty among the Region's black families (36 percent) and among persons 65 years of age and older (37 percent). However, black families were only 6.1 percent of the Region's total families in 1970 (9.5 percent of the U.S. total), and older persons were 10.4 percent of Appalachian household population (9.7 percent of the U.S. total). Thus, the Region had a higher proportion of older than of black population. The incidence of poverty among Appalachian black families was one-fifth higher than the U.S. average level and among the older Appalachian population, one-third higher than the national average.

Table 15

Poverty Status and Incidence Among Selected Population Groups Appalachian Region and United States
1970 Census

Geographical Division	Families below Poverty Level				Persons below Poverty Level		
	Total Number of Families	All Families (percent)	White Families (percent)	Black Families (percent)	All Persons (percent)	Persons 65 Years and Under (percent)	Persons 65 Years and Over (percent)
United States	**5,462,216**	**10.7%**	**8.6%**	**29.8%**	**13.7%**	**12.2%**	**27.3%**
Appalachian Region	**701,759**	**14.8%**	**13.5%**	**36.0%**	**18.1%**	**16.0%**	**36.6%**
Subregions							
Northern Appalachia	**258,562**	**10.3%**	**9.9%**	**25.7%**	**13.4%**	**11.3%**	**30.3%**
Maryland	6,343	11.5	11.3	24.0	14.8	12.6	33.8
New York	20,959	8.1	8.0	17.9	11.5	9.5	29.3
Ohio	37,534	13.0	12.8	24.0	16.0	13.5	36.3
Pennsylvania	133,381	8.7	8.2	25.5	11.4	9.5	27.5
West Virginia	60,345	16.4	16.0	30.4	20.4	18.1	38.4
Central Appalachia	**135,969**	**30.0%**	**29.8%**	**38.3%**	**34.7%**	**32.9%**	**49.9%**
Kentucky	75,722	33.6	33.5	43.3	38.8	37.2	51.9
Tennessee	24,796	27.5	27.2	42.6	31.1	28.5	52.5
Virginia	14,099	27.5	27.4	38.4	31.3	29.4	48.8
West Virginia	21,352	24.9	24.2	34.1	29.8	28.3	42.3
Southern Appalachia	**307,228**	**17.3%**	**14.5%**	**39.2%**	**20.6%**	**18.3%**	**43.3%**
Alabama	102,181	18.4	14.1	40.2	22.1	19.9	43.7
Georgia	31,904	14.7	13.6	31.2	16.9	14.4	45.0
Mississippi	29,728	28.1	19.0	58.7	33.8	31.0	55.6
North Carolina	44,935	16.1	14.8	30.5	18.6	16.3	41.3
South Carolina	22,306	13.0	9.9	32.3	16.2	14.2	39.7
Tennessee	64,217	17.1	16.0	35.3	20.3	18.1	41.3
Virginia	11,957	16.4	16.0	27.0	19.4	17.0	38.8
State Parts*							
Tennessee	89,013	19.1%	18.3%	35.7%	22.4%	20.1%	43.8%
Virginia	26,056	21.0	20.8	29.2	24.4	22.3	42.8
West Virginia	81,697	18.0	17.5	31.9	22.2	20.1	39.1

Source: Compiled by Appalachian Regional Commission from fourth count tabulations of the 1970 Census of Population. All data totals are independen rounded from unrounded source data; totals may not add due to rounding.

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
Entire state.

Table 16

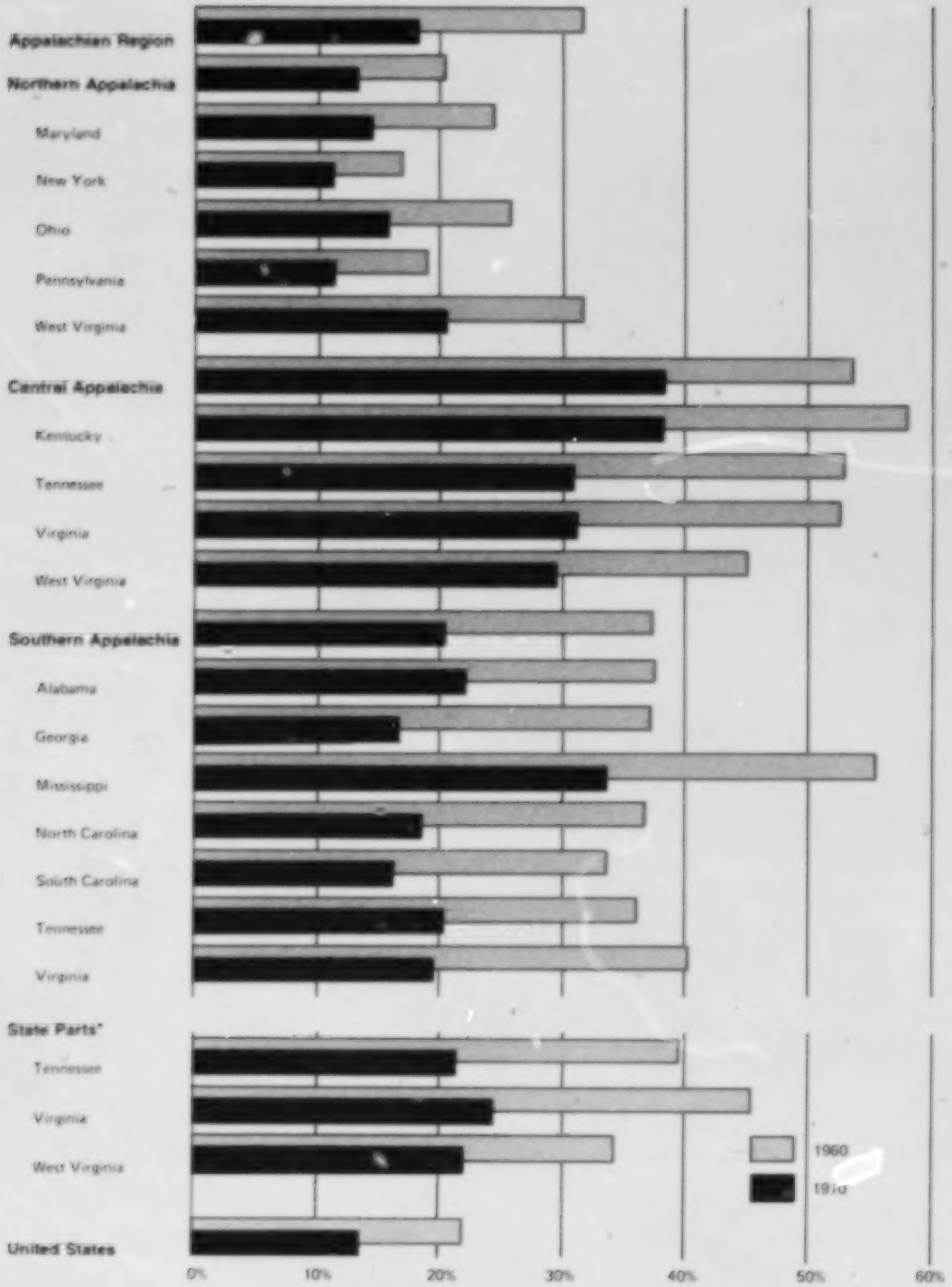
Poverty Status of Total Household Population Appalachian Region and United States 1960–1970

Geographical Division	Below Poverty Level in 1970			Below Poverty Level in 1960		
	Number of Persons	Percent of Household Population	Poverty Index	Number of Persons	Percent of Household Population	Poverty Index
United States	**27,124,985**	**13.7%**	**100**	**38,684,545**	**22.1%**	**100**
Appalachian Region	**3,228,449**	**18.1%**	**132**	**5,448,612**	**31.2%**	**141**
Subregions						
Northern Appalachia	**1,268,311**	**13.4%**	**97**	**2,082,243**	**21.9%**	**99**
Maryland	30,214	14.8	108	47,939	24.9	113
New York	116,917	11.5	84	165,110	17.1	77
Ohio	176,373	16.0	117	287,115	26.1	118
Pennsylvania	663,877	11.4	84	1,126,903	19.3	88
West Virginia	280,930	20.4	149	455,176	31.6	143
Central Appalachia	**597,502**	**34.7%**	**254**	**1,012,491**	**54.1%**	**245**
Kentucky	334,373	38.8	284	536,079	58.4	264
Tennessee	102,574	31.1	227	173,198	53.6	242
Virginia	61,372	31.3	229	121,596	53.0	240
West Virginia	99,183	29.8	217	181,618	45.4	205
Southern Appalachia	**1,362,636**	**20.6%**	**151**	**2,351,878**	**38.7%**	**175**
Alabama	463,306	22.1	161	762,251	38.8	175
Georgia	135,957	16.9	124	258,812	38.5	174
Mississippi	138,594	33.8	246	225,941	56.0	253
North Carolina	190,440	18.8	137	341,949	37.2	169
South Carolina	104,010	16.2	118	195,940	34.0	154
Tennessee	278,487	20.3	148	459,357	36.3	164
Virginia	51,842	19.4	141	107,588	40.1	181
State Parts*						
Tennessee	381,061	22.4%	164	632,555	39.9%	180
Virginia	113,214	24.4	178	229,184	46.0	208
West Virginia†	380,113	22.2	162	636,794	34.6	157

Source: Compiled by Appalachian Regional Commission from fourth count tabulations of the 1970 Census of Population, 1960 data file on computer tape furnished by the Office of Economic Opportunity (now the Community Services Administration). All data totals are independently rounded from unrounded source data; totals may not add due to rounding.

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
†Entire state.

Persons below Poverty Level as a Percentage of Household Population 1960 and 1970



*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.

Social Development

Bill Brower

Educational Attainment and School Enrollment in the Appalachian Region

The Appalachian Region lags behind the nation in educational attainment of its adults, youth and young children, as measured by four indicators from the 1970 Census: completion of high school; completion of four years or more of college; noncompletion of high school by youth; and school enrollment of children aged 3 and 4.

In the Region (1970), 56 percent of all adults aged 25 years and over had not completed four years of high school, contrasted with 47 percent for the non-Appalachian U.S.; those completing four or more years of college constituted 7.3 percent of all Appalachians (10.7 percent in the rest of the country). See Figure 8 on page 53 and Table 17 on page 54.

Among youth aged 18 through 24, the proportion not completing high school was 31.5 percent in Appalachia vs. 27.0 percent in the rest of the nation (see Table 18). For the same group an estimated 22 percent were enrolled in college in Appalachia, contrasted with 24 percent in the rest of the United States. Since students are counted in the census at their place of college residence, this statistic may reflect the presence of colleges and enrollments of nonresidents of the Region. It appears from the data that deficiencies in educational attainment of Appalachian youth in 1970 were somewhat less than those of their elders.

The "dropout rate," measured approximately by population aged 16 and 17 years not enrolled in school, was 14 percent in the Appalachian Region in 1970 but only 10 percent in the U.S. (see Table 19). Between 1960 and 1970, population in this age group increased by only 12.5 percent in the Region, while in the rest of the U.S. it grew by 40 percent! This reflects the large outmigration from Appalachia which occurred in the decade of the 1960s. This factor conditioned the result that the absolute number of "dropouts" in the Region fell by over 30 percent in the decade, while the *proportion* improved much less than in the U.S. generally.

In 1970, 3- and 4-year-old children enrolled in school in the Region were only 56 percent of the proportion for the rest of the United States (13.0 percent). No state area equalled the national level within the Region (see Table 20 on page 57).

Subregional differences in educational attainment generally show the greatest deficiencies in Central Appalachia and the highest levels of attainment in the northern subregion, with Appalachian New York and Pennsylvania frequently at levels more favorable than the U.S. average. Southern Appalachia lay somewhere between the extremes, with some characteristics (adults with four or more years of college) closer to the northern level and others ("dropout" rate for 16- and 17-year olds) nearer the central level. For early childhood schooling, the southern subregion had in 1970 the highest proportion enrolled.

The measures of educational attainment are for 1970, and it is well to bear in mind that some characteristics have changed considerably since then. For the United States as a whole, data are available for 1975, showing the following:

	1975	1970
Adults, less than four years of high school	37.4%	47.6%
Adults, four years of college, or more	13.9	10.7
Youth 18–24, not completed high school	22.2	27.4
Youth 18–24, enrolled in college	26.3	23.6
Youth 16–17, not in school	#11.0	**10.7
Children 3–4, enrolled in school	31.5	12.5

#Data for the United States show that in 1975 22 percent of youth 16–17 years old not in school had completed at least four years of high school and were not technically "dropouts."

**Data for the United States from census cross-tabulations show that 11.5 percent of youth 16–17 had completed at least four years of high school and were not "dropouts." These cross-tabulations are not available for the Appalachian Region.

These characteristics may also have improved in Appalachia, but at present the 1975 data are not available for the Region.

Figure 8

Years of School Completed by Persons 25 Years and Over 1970

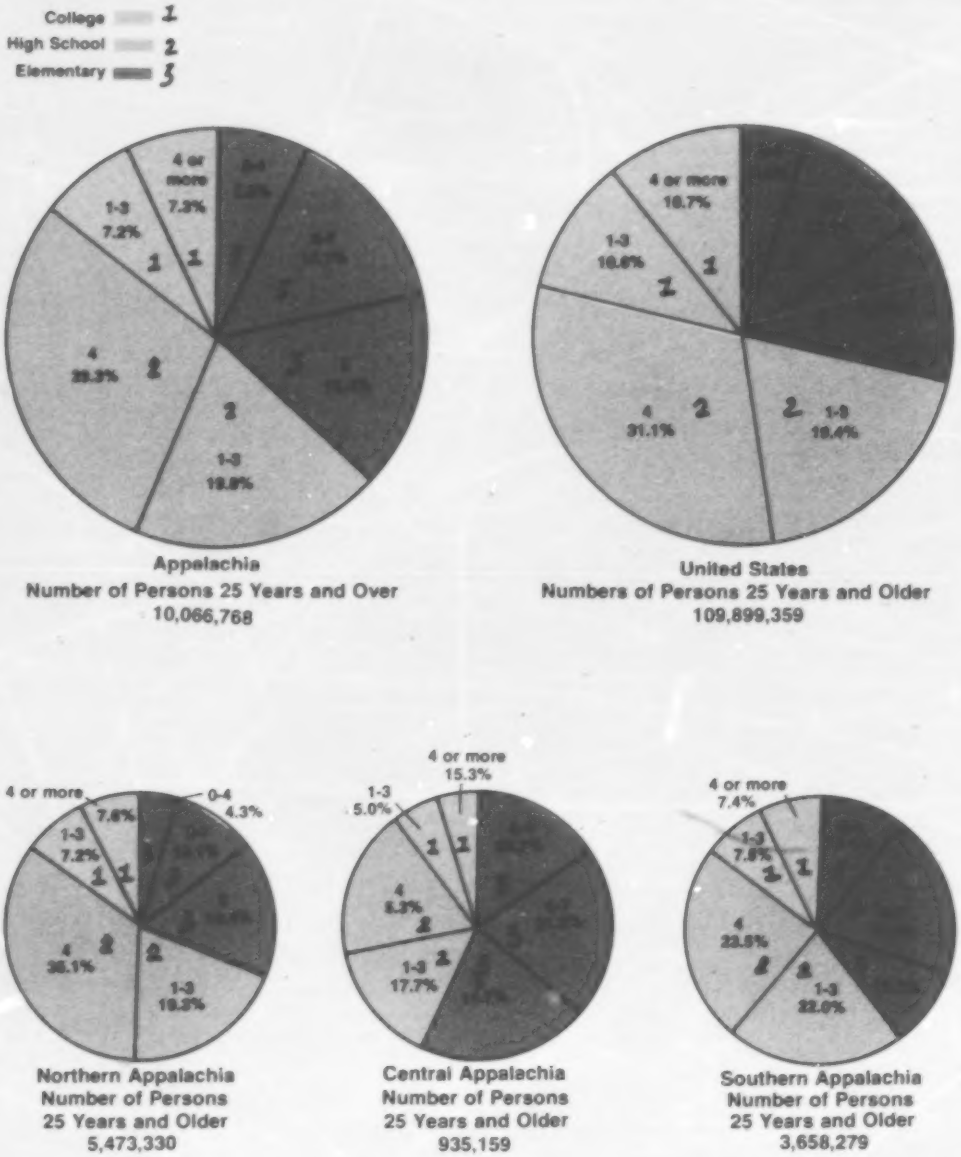


Table 17

Adult Educational Attainment
Appalachian Region and United States
1970

Geographical Division	Number of Persons 25 Years and Older	Persons: 25 Years and Older — Less Than High School Education (total number)	Less Than High School Education (percent)	Four or More Years of College (total number)	Four or More Years of College (percent)	Combined Index*
United States	**109,899,359**	**52,373,312**	**47.7%**	**11,717,266**	**10.7%**	**100.0**
Appalachian Region	**10,066,768**	**5,661,734**	**56.2%**	**733,814**	**7.3%**	**66.7**
Subregions						
Northern Appalachia	**5,473,330**	**2,738,977**	**50.0%**	**417,372**	**7.6%**	**79.3**
Maryland	118,483	63,870	53.9	7,515	6.3	65.7
New York	564,812	242,116	42.9	61,014	10.8	122.0
Ohio	617,952	336,641	54.5	32,014	5.2	59.3
Pennsylvania	3,382,843	1,652,439	48.8	259,764	7.7	82.5
West Virginia	789,240	443,911	56.2	57,065	7.2	66.4
Central Appalachia	**935,159**	**673,286**	**72.0%**	**46,619**	**5.0%**	**43.2**
Kentucky	463,274	340,843	73.6	23,399	5.1	42.7
Tennessee	186,163	129,706	69.7	10,812	5.8	48.2
Virginia	105,526	80,622	76.4	3,833	3.6	34.9
West Virginia	180,196	122,115	67.8	8,575	4.8	44.4
Southern Appalachia	**3,658,279**	**2,249,471**	**61.5%**	**269,823**	**7.4%**	**61.4**
Alabama	1,150,149	670,645	58.3	90,371	7.9	66.8
Georgia	433,879	301,088	69.4	22,210	5.1	45.1
Mississippi	217,370	138,034	63.5	15,169	7.0	57.8
North Carolina	577,576	365,426	63.3	42,585	7.4	59.8
South Carolina	351,508	224,277	63.8	29,980	8.5	64.8
Tennessee	771,716	443,902	57.5	61,863	8.0	58.5
Virginia	156,081	106,099	68.0	7,645	4.9	44.9
State Parts†						
Tennessee	957,879	573,608	59.9%	72,675	7.6%	63.9
Virginia	261,607	186,721	71.4	11,478	4.4	40.7
West Virginia‡	969,436	566,026	58.4	65,640	6.8	61.6

Source: Tabulations are estimates by the Appalachian Regional Commission from U.S. Bureau of Census, "1970 Census of Population," fourth count computer data files (sample counts).

*Combined index is mean of index of college education (based on percentage relative to U.S.) and inverse index of less than high school education. Values below 100 represent combined educational attainment levels below the U.S. average.

†Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
‡Entire state.

Table 18

Youth Educational Attainment
Appalachian Region and United States
1970

Geographical Division	Number of Persons 18–24 Years Old	Persons 18–24 Years Old: Less Than High School Education (total number)	Less Than High School Education (percent)	Enrolled in College (total number)	Enrolled in College (percent)	Combined Index
United States	**23,383,006**	**6,395,824**	**27.4%**	**5,524,042**	**23.6%**	**100**
Appalachian Region	**1,998,005**	**629,301**	**31.5%**	**436,000**	**21.8%**	**90**
Subregions						
Northern Appalachia	**1,044,581**	**247,750**	**23.7%**	**262,000**	**25.1%**	**111**
Maryland	22,878	6,790	29.7	3,500	15.0	79
New York	128,588	28,606	22.2	43,000	34.0	133
Ohio	119,570	35,697	29.9	26,000	21.5	91
Pennsylvania	616,920	129,691	21.0	151,000	24.5	117
West Virginia	156,625	46,966	30.0	38,500	24.5	98
Central Appalachia	**187,052**	**86,239**	**46.1%**	**29,500**	**16.0%**	**63**
Kentucky	97,044	44,148	45.5	18,000	19.0	70
Tennessee	35,810	15,632	43.7	5,500	16.0	65
Virginia	20,762	11,700	56.4	2,000	10.0	45
West Virginia	33,436	14,759	44.1	3,800	11.0	55
Southern Appalachia	**766,372**	**295,312**	**38.5%**	**144,500**	**19.0%**	**75**
Alabama	237,219	89,805	37.9	44,000	18.5	75
Georgia	92,637	42,446	45.8	12,000	13.0	57
Mississippi	49,539	19,764	39.9	11,500	23.0	83
North Carolina	117,505	43,227	36.8	22,000	19.0	77
South Carolina	78,429	29,996	38.2	16,500	21.0	80
Tennessee	163,029	57,194	35.1	35,000	21.5	85
Virginia	28,014	12,880	46.0	3,500	13.0	57
State Parts*						
Tennessee	198,839	72,826	36.6	40,500	20.5	81
Virginia	48,776	24,580	50.4	5,500	11.0	51
West Virginia†	190,061	61,725	32.5	42,258	22.2	89

Source: 1970 Census of Population, fourth count computer data files (sample counts). Count of persons aged 18–24 enrolled in college available only for whole states and 1970 standard metropolitan statistical areas of 250,000 population or more; missing data estimated by ARC staff based on tabulations of correlative data.

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
†Entire state.

Table 19

Youth 16–17 Years Old Not Enrolled in School Appalachian Region and United States 1960–1970

Geographical Division	Persons 16–17 Years Old in 1970				Persons 16–17 Years Old in 1960			
	Number of Persons 16–17 Years Old 1970	Not Enrolled in School (total number)	Not Enrolled in School (percent)	Not Enrolled in School Index	Number of Persons 16–17 Years Old 1960	Not Enrolled in School (total number)	Not Enrolled in School (percent)	Not Enrolled in School Index
United States	**7,804,905**	**833,440**	**10.7%**	**100.0**	**5,710,672**	**1,089,165**	**19.1%**	**100.0**
Appalachian Region	**716,868**	**101,359**	**14.1%**	**132.4**	**636,947**	**146,017**	**22.9%**	**120.2**
Subregions								
Northern Appalachia	**379,254**	**37,192**	**9.8%**	**91.8**	**325,093**	**60,104**	**18.5%**	**96.9**
Maryland	7,550	1,011	13.4	125.4	6,925	1,554	22.4	117.7
New York	40,950	3,494	8.5	79.9	32,333	4,707	14.6	76.3
Ohio	43,913	5,216	11.9	111.2	37,622	7,225	19.2	100.7
Pennsylvania	231,097	19,024	8.2	77.1	194,855	32,902	16.9	88.5
West Virginia	55,744	8,447	15.2	141.9	53,358	13,716	25.7	134.8
Central Appalachia	**75,149**	**17,067**	**22.7%**	**212.7**	**81,357**	**26,426**	**32.5%**	**170.3**
Kentucky	36,993	9,362	25.3	237.0	40,038	13,209	33.0	173.0
Tennessee	13,356	2,773	20.8	194.4	13,504	4,309	31.9	167.3
Virginia	8,781	1,734	19.7	184.9	10,196	3,764	36.9	193.6
West Virginia	16,019	3,198	20.0	187.0	17,619	5,144	29.2	153.1
Southern Appalachia	**262,465**	**47,100**	**17.9%**	**168.1**	**230,497**	**59,487**	**25.8%**	**135.3**
Alabama	86,595	13,725	15.8	148.4	72,794	17,158	23.6	123.6
Georgia	30,261	7,645	25.3	236.6	26,603	7,446	28.0	146.8
Mississippi	17,118	3,295	19.4	180.3	16,126	3,048	18.9	99.1
North Carolina	39,102	6,667	17.1	159.7	36,173	9,274	25.6	134.4
South Carolina	25,839	4,329	16.8	161.4	20,707	6,739	32.5	170.6
Tennessee	52,802	9,764	18.5	173.2	47,200	12,610	26.7	140.1
Virginia	10,748	1,675	15.6	145.9	10,894	3,212	29.5	154.6
State Parts*								
Tennessee	66,158	12,537	19.0%	177.5	60,704	16,919	27.9%	146.1
Virginia	19,529	3,409	17.5	163.5	21,090	6,976	33.1	173.4
West Virginia†	71,763	11,645	16.2	152.0	70,977	18,860	26.6	139.3

Source: 1970 Census of Population, fourth count computer data files (sample counts). 1960 Census of Population, sample count data. Tabulations by ARC staff.

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
†Entire state.

Table 20

Children 3–4 Years Old Enrolled in School Appalachian Region and United States 1970

Geographical Division	Number of Children 3–4 Years Old	Children 3–4 Years Old Enrolled in School (total number)	Children 3–4 Years Old Enrolled in School (percent)	Enrollment Index
United States	**7,026,504**	**879,216**	**12.51%**	**100.0**
Appalachian Region	**609,961**	**44,172**	**7.24%**	**57.9**
Subregions				
Northern Appalachia	**317,065**	**21,761**	**6.86%**	**54.9**
Maryland	6,825	490	7.18	57.4
New York	36,419	3,323	9.12	72.9
Ohio	39,456	1,502	3.81	30.4
Pennsylvania	189,464	14,611	7.71	61.6
West Virginia	44,901	1,835	4.09	32.7
Central Appalachia	**60,363**	**2,405**	**3.98%**	**31.8**
Kentucky	31,312	1,060	3.39	27.1
Tennessee	10,957	814	7.43	59.4
Virginia	6,545	187	2.86	22.8
West Virginia	11,549	344	2.98	23.8
Southern Appalachia	**232,533**	**20,006**	**8.60%**	**68.8**
Alabama	74,119	7,541	10.17	81.3
Georgia	30,549	1,847	6.05	48.3
Mississippi	15,257	1,250	8.19	65.5
North Carolina	34,618	3,038	8.78	70.1
South Carolina	22,787	2,055	9.02	72.1
Tennessee	46,272	3,955	8.55	68.3
Virginia	8,931	320	3.58	28.6
State Parts*				
Tennessee	57,229	4,769	8.33%	66.6
Virginia	15,476	507	3.28	26.2
West Virginia†	56,450	2,179	3.86	30.8

Source: Tabulations are estimates by the Appalachian Regional Commission from U.S. Bureau of Census, 1970 Census of Population, fourth count computer data file (sample counts).

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
†Entire state.

Nonfederal Physicians in the Appalachian Region

In 1974 there were 101 active nonfederal physicians in the Appalachian Region per 100,000 population, compared with 152 in the United States—a level in the Region only two-thirds of the national average (see Table 21 on page 59). Within the Appalachian Region the physician-population ratio varied widely from 132 (87 percent of U.S. level) in northern metropolitan areas to 43 (28 percent of U.S. level) in southern rural counties (see Table 22). Only the major metropolitan counties as a group were above the regional average, and only 15 of the 397 counties in the Region were above the U.S. average physician-population ratio. Seven of these were larger regional centers (including 4 of the 5 counties in Southern Appalachia with over 200,000 population), and 6 were smaller centers in rural or urban counties. Two counties were relatively small counties with large institutional populations. Among subregions, Northern Appalachia had the highest ratio (111 per 100,000 population) and Central Appalachia the lowest (65 per 100,000 population). No state part in Appalachia averaged higher than 80 percent of the U.S. physician-population ratio.

The physician-population ratio increased much more rapidly in the 1970-74 period than between 1967 and 1970 both in the Region and in the nation. However, the rate of increase in both periods for the Region lagged behind that of the nation, so that the relative level fell from 68 percent of the national average to 66 percent over the seven-year period. Trends in the relative level improved (i.e., the ratio of physicians increased more rapidly than the U.S. average change) in West Virginia and in the Appalachian parts of South Carolina, Alabama and North Carolina. Changes tended to be uneven between the two periods measured (1967–70 and 1970–74) in many state areas.

At the detailed county level (see map on page 60) the wide variation in physician distribution relative to population is shown. There are areas of concentration of doctors and areas with very low physician levels or no physicians at all.

Of the Region's 397 counties, 24 have a significant number of federal physicians. Eleven counties have a concentration of institutional population (usually mental hospitals or institutions for the handicapped) which accounts for extraordinary medical manpower concentrations in these counties.

Table 21

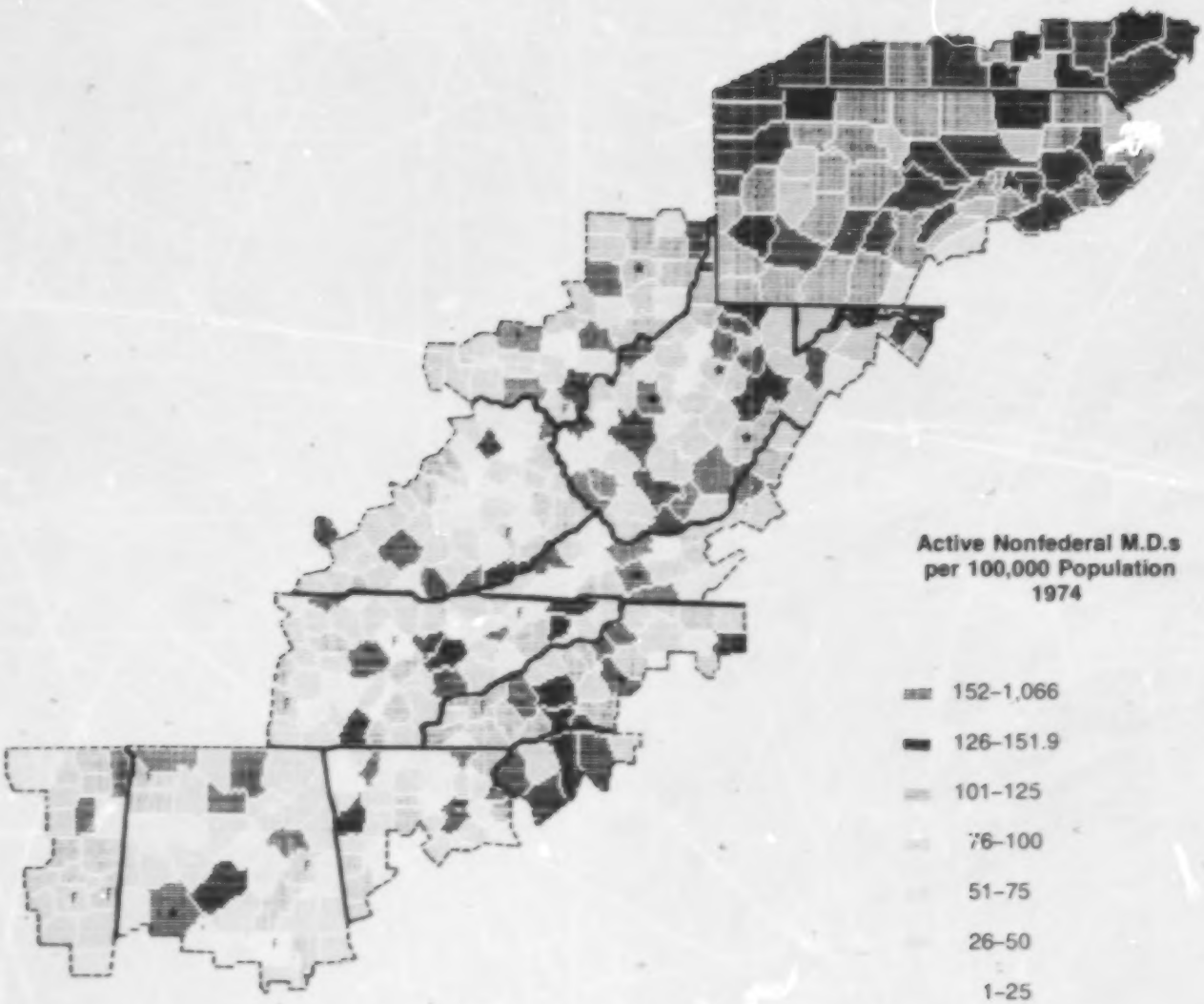
Active Nonfederal M.D.s per 100,000 Population Appalachian Region and United States 1967–1974

Geographical Division	1974 Active Nonfederal M.D.s per 100,000 Population (total number)	1974 Active Nonfederal M.D.s per 100,000 Population (percent)	1970 Active Nonfederal M.D.s per 100,000 Population (total number)	1970 Active Nonfederal M.D.s per 100,000 Population (percent)	1967 Active Nonfederal M.D.s per 100,000 Population (total number)	1967 Active Nonfederal M.D.s per 100,000 Population (percent)	Percent Change in Number of Active Nonfederal M.D.s per 100,000 Population 1970-74	Percent Change in Number of Active Nonfederal M.D.s per 100,000 Population 1967-70
United States	**151.9**	**100.0%**	**136.8**	**100.0%**	**133.9**	**100.0%**	**11.0%**	**2.2%**
Appalachian Region	**100.6**	**66.2%**	**91.0**	**66.5%**	**90.8**	**67.8%**	**10.5%**	**0.2%**
Subregions								
Northern Appalachia	**111.0**	**73.1%**	**99.8**	**73.0%**	**101.1**	**75.5%**	**11.2%**	**–1.3%**
Maryland	108.7	71.6	97.4	71.2	96.1	71.8	11.6	1.4
New York	121.1	97.7	110.5	80.8	109.9	82.1	9.6	0.5
Ohio	62.1	40.9	58.9	43.1	60.7	45.3	5.4	–3.0
Pennsylvania	118.0	77.7	106.1	77.6	108.1	80.7	11.2	–1.9
West Virginia	114.8	75.6	98.4	71.9	98.4	73.5	16.7	0.0
Central Appalachia	**65.2**	**42.9%**	**61.8**	**45.2%**	**59.4**	**44.4%**	**5.5%**	**4.0%**
Kentucky	57.0	37.5	53.9	39.4	52.6	39.3	5.8	2.5
Tennessee	58.6	38.6	54.7	40.0	57.3	42.8	7.1	–4.5
Virginia	58.4	38.4	53.4	39.0	54.3	40.6	9.4	–1.7
West Virginia	98.3	69.7	94.2	68.9	81.9	61.2	4.4	15.0
Southern Appalachia	**95.5**	**62.9%**	**86.6**	**62.9%**	**84.4**	**63.0%**	**11.0%**	**1.9%**
Alabama	104.6	68.9	93.0	68.0	88.1	65.8	12.5	5.6
Georgia	54.1	35.6	52.6	38.5	54.0	40.3	2.9	–2.6
Mississippi	55.3	36.4	52.6	38.5	54.0	40.3	5.1	–2.6
North Carolina	116.8	76.9	101.9	74.5	101.5	75.8	14.6	0.4
South Carolina	107.3	70.6	92.5	67.6	88.8	66.3	16.0	4.2
Tennessee	104.4	68.7	94.6	69.2	93.0	69.5	10.4	1.7
Virginia	64.2	42.3	61.0	44.5	67.9	50.7	5.2	–10.2
State Parts*								
Tennessee	95.5	62.9%	86.9	63.5%	86.0	64.2%	9.9%	1.0%
Virginia	61.7	40.6	57.8	42.3	62.1	46.4	6.7	–6.9
West Virginia†	111.6	73.5	97.6	71.3	95.1	71.0	14.3	2.6

Source: Gene Roback and Henry R. Mason, *Physician Distribution and Medical Licensure in the U.S., 1974* (Chicago, American Medical Association, 1975). Regional data tabulated by ARC staff. Comparable volumes published by same source for years 1970 and 1967. Population data for ratio estimates for 1974 and 1970, U.S. Bureau of the Census estimate (1974) and 1970 census (revised data). 1967 population interpolated by ARC staff, based on 1966 revised and adjusted county population estimates made by ARC.

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
†Entire state.

Physician-Population Ratio
1974
Appalachian Region by County



† Indicates a county with 2 or more federal M.D.s who equal at least 10 percent of the number of nonfederal M.D.s or a county with 1 federal M.D. and no nonfederal M.D.

* Indicates a county with long-term institutional populations which number at least 3 percent of the total population of the county, and are estimated to require a heavy concentration of M.D.s.

Source: Gene Roback and Henry R. Mason, *Physician Distribution and Medical Licensure in the U.S., 1974* (Chicago: American Medical Association, 1975). Population data for ratio estimates from U.S. Bureau of Census estimates for 1974. Virginia independent cities are combined with counties. Map produced by composite mapping system developed by the U.S. Department of Commerce, Economic Development Administration and furnished to the Appalachian Regional Commission.
Note: Water bodies shown as blank.

Table 22

Active Nonfederal M.D.s per 100,000 Population Appalachian Region by County Group and United States 1967–1974

Geographical Division	1974 Population* (thousands)	1974 Active Nonfederal M.D.s (total number)	1974 Active Nonfederal M.D.s per 100,000 Population (total number)	1970 Population† (thousands)	1970 Active Nonfederal M.D.s (total number)	1970 Active Nonfederal M.D.s per 100,000 Population (total number)	1967 Population‡ (thousands)	1967 Active Nonfederal M.D.s (total number)	1967 Active Nonfederal M.D.s per 100,000 Population (total number)	1967–74 Percent Change in Number of Active Nonfederal M.D.s per 100,000 Population
United States	**211,381**	**321,089**	**152**	**203,810**	**279,912**	**137**	**197,409**	**264,328**	**134**	**13.4 %**
Appalachian Region	**18,894.2**	**19,011**	**101**	**18,273.4**	**16,626**	**91**	**18,133.3**	**16,474**	**91**	**10.8 %**
Northern Appalachia	9,848.6	10,934	111	9,753.8	9,730	100	9,733.3	9,837	101	9.85
Central Appalachia	1,850.9	1,207	65	1,754.1	1,083	62	1,802.4	1,071	59	9.75
Southern Appalachia	7,194.7	6,870	95	6,765.5	5,813	86	6,597.6	5,566	84	13.2
Metropolitan Counties	**9,422.7**	**12,141**	**129**	**9,239.4**	**10,499**	**114**	**9,071.5**	**10,228**	**113**	**14.3 %**
Northern Appalachia	5,323.7	7,013	132	5,360.9	6,231	116	5,315.5	6,235	117	12.3
Central Appalachia	197.9	168	85	195.0	155	79	192.3	158	82	3.3
Southern Appalachia	3,901.1	4,960	127	3,683.5	4,113	112	3,563.7	3,836	108	18.1
Major Metropolitan	7,969.7	11,585	145	7,934.5	9,997	126	7,827.4	9,712	124	17.2 %
Northern Appalachia	4,921.8	6,815	138	4,980.3	6,050	121	4,943.3	6,049	122	13.2
Central Appalachia	113.6	140	123	113.0	127	112	113.2	131	116	6.5
Southern Appalachia	2,934.4	4,630	158	2,841.2	3,820	134	2,770.9	3,532	127	23.8
Peripheral Metropolitan	1,453.0	556	38	1,304.9	502	38	1,244.1	516	41	– 7.7 %
Northern Appalachia	402.0	198	49	380.6	181	48	372.2	185	50	– 0.9
Central Appalachia	84.3	28	33	82.0	28	34	79.1	27	34	– 2.7
Southern Appalachia	966.7	330	34	842.3	293	35	792.8	304	38	–11.0
Urban Counties	**4,781.3**	**4,318**	**90**	**4,594.4**	**3,793**	**83**	**4,564.7**	**3,797**	**83**	**8.6 %**
Northern Appalachia	2,835.8	2,778	98	2,776.4	2,446	88	2,781.4	2,496	90	9.2
Central Appalachia	333.2	349	105	310.9	297	96	298.6	276	99	17.1
Southern Appalachia	1,612.2	1,191	74	1,507.2	1,050	70	1,474.8	1,025	70	6.3
Rural Counties	**4,690.2**	**2,552**	**54**	**4,439.6**	**2,334**	**53**	**4,497.1**	**2,449**	**54**	**– 0.1 %**
Northern Appalachia	1,689.1	1,143	68	1,616.6	1,053	65	1,636.4	1,107	68	0.03
Central Appalachia	1,319.8	690	52	1,248.2	631	51	1,301.5	637	49	6.8
Southern Appalachia	1,681.3	719	43	1,574.8	650	41	1,559.2	705	45	– 5.4

Source: Gene Roback and Henry R. Mason, *Physician Distribution and Medical Licensure in the U.S., 1974* (Chicago, American Medical Association, 1975). Regional data tabulated by ARC staff. Comparable volumes published by same source for years 1970 and 1967. Population data for ratio estimates for 1974 and 1970, U.S. Bureau of the Census estimate (1974) and 1970 census (revised data). 1967 population interpolated by ARC staff, based on 1966 revised and adjusted county population estimates made by ARC. See Table 6 and associated text for definition and population data on metropolitan, urban and rural counties.

*U.S. Bureau of Census provisional population estimates for July 1, 1974.

†U.S. Bureau of Census revised population data for April 1, 1970.

‡U.S. Bureau of Census provisional population estimates for July 1, 1967 for states. County estimates interpolated by ARC staff from 1966 revised county population estimates and 1970 census data.

Infant Mortality Trends in the Appalachian Region

Infant mortality rates have dropped rapidly under the impact of modern health care, and the Appalachian Region is no exception to this trend. Infant mortality (deaths under 1 year of age per 1,000 live births) in Appalachia fell from 26.5 in 1960 to 22.9 in 1968 and 17.8 in 1974 (see Table 23). The rate of reduction in 1960–68 was slower than for the nation as a whole (which fell from 26.0 to 21.8), but in the 1968–74 period the infant mortality rate fell in the Region at about the same rate as in the U.S. (where it dropped from 21.8 to 16.7). In 1974 the infant mortality rate for the Appalachian Region was 6 percent higher than for the U.S. For the Appalachian white population it was 13 percent higher than the rate for the U.S. white population. For Appalachian nonwhites the rate was 5 percent higher than for the U.S. nonwhite population. Nonwhites (7 percent of Appalachian population) contributed 10 percent of the Region's births and 15 percent of its infant mortality (see Table 24 on page 64).

Within the Region the infant mortality rate was highest in Central Appalachia, but the improvement in this subregion over the 14-year period was the greatest in the Region and well above the national shift. The infant mortality rate in Southern Appalachia improved in 1960–68 by about the same amount as the U.S. average but accelerated its improvement in the later period (1968–74). Northern Appalachian infant mortality lagged in its improvement; lower than the U.S. average rate in 1960, it fell much less rapidly, so that in 1974 its infant mortality rate was the same as the U.S. average (though, if adjusted for racial mix, it was 9 percent higher). Within Appalachian state areas, infant mortality ranged from 14.7 in New York to 22.4 in Mississippi. The most rapid improvement occurred in 1968–74 in Mississippi, North Carolina, Kentucky and Georgia.

Table 23

Live Births and Infant Deaths
Appalachian Region and United States
1960–1974

Geographical Divisions	Live Births 1974	Infant Deaths 1974	Infant Deaths per 1,000 Live Births 1974	1968	1960	Average Annual Reduction of Rate per 1,000 Live Births 1968–74	1960–68
United States	**3,159,958**	**52,776**	**16.7**	**21.8**	**26.0**	**0.85**	**0.53**
Appalachian Region	**273,442**	**4,838**	**17.7**	**22.9**	**26.5**	**0.87**	**0.45**
Subregions							
Northern Appalachia	**130,808**	**2,187**	**16.7**	**21.0**	**23.8**	**0.71**	**0.35**
Maryland	2,616	41	15.7	17.9	25.0	0.38	0.88
New York	14,240	209	14.7	18.7	22.6	0.67	0.48
Ohio	17,762	282	15.9	21.7	24.0	0.96	0.29
Pennsylvania	74,821	1,281	17.1	21.1	23.9	0.67	0.35
West Virginia	21,337	374	17.5	22.1	24.3	0.76	0.27
Central Appalachia	**30,545**	**582**	**19.1**	**25.2**	**30.7**	**1.02**	**0.69**
Kentucky	15,484	269	17.4	24.1	30.9	1.12	0.85
Tennessee	5,233	100	19.1	23.8	28.3	0.78	0.56
Virginia	3,529	72	20.4	26.2	34.8	0.96	1.08
West Virginia	6,299	141	22.4	28.8	29.7	1.08	0.11
Southern Appalachia	**112,121**	**2,069**	**18.5**	**24.8**	**29.1**	**1.05**	**0.54**
Alabama	35,002	686	19.6	24.6	31.0	0.83	0.80
Georgia	15,966	276	17.3	24.0	29.1	1.12	0.64
Mississippi	8,083	181	22.4	33.2	32.9	1.60	−0.04
North Carolina	15,702	279	17.8	26.0	26.8	1.38	0.10
South Carolina	11,211	215	19.2	24.7	27.6	0.92	0.36
Tennessee	22,317	373	16.7	22.4	27.6	0.95	0.65
Virginia	3,840	59	15.4	21.8	27.2	1.07	0.68
State Parts*							
Tennessee	27,550	473	17.2	22.7	27.7	0.92	0.63
Virginia	7,369	131	17.8	23.7	31.0	0.99	0.91
West Virginia	27,636	515	18.7	23.5	25.5	0.81	0.25

Source: Data for 1968 and 1974 provided by state departments of vital statistics of the Appalachian states. Data for 1960 live births from *1962 City and County Data Book* computer file data. 1960 infant deaths from *Vital Statistics of the United States, 1960, Volume II—Mortality, Part B*, Table 9-1, tabulated by ARC staff.

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.

Table 24

White and Nonwhite Live Births and Infant Deaths Appalachian Region and United States 1974

Geographical Division	Total Population			White Population			Nonwhite Population		
	Live Births	Infant Deaths	Infant Deaths per 1,000 Live Births	Live Births	Infant Deaths	Infant Deaths per 1,000 Live Births	Live Births	Infant Deaths	Infant Deaths per 1,000 Live Births
United States	**3,159,958**	**52,776**	**16.70**	**2,575,792**	**38,249**	**14.85**	**584,166**	**14,527**	**24.87**
Appalachian Region	**273,442**	**4,838**	**17.69**	**245,635**	**4,109**	**16.73**	**27,807**	**729**	**26.22**
Subregions									
Northern Appalachia	**130,776**	**2,187**	**16.72**	**124,963**	**2,025**	**16.20**	**5,813**	**162**	**27.87**
Maryland	2,616	41	15.7	2,543	40	15.7	73	1	14.
New York	14,240	209	14.7	13,831	201	14.5	409	8	20.
Ohio	17,762	282	15.9	17,282	273	15.8	480	9	19.
Pennsylvania	74,821	1,281	17.12	70,728	1,153	16.30	4,093	128	31.3
West Virginia	21,337	374	17.5	20,579	358	17.4	758	16	21.
Central Appalachia	**30,545**	**582**	**19.05**	**29,588**	**559**	**18.89**	**957**	**23**	**24.0**
Kentucky	15,484	269	17.4	15,172	266	17.5	312	3	10.
Tennessee	5,233	100	19.1	5,097	96	18.8	136	4	29.
Virginia	3,529	72	20.4	3,474	70	20.1	55	2	36.
West Virginia	6,299	141	22.4	5,845	127	21.7	454	14	31.
Southern Appalachia	**112,121**	**2,069**	**18.45**	**91,884**	**1,525**	**16.74**	**21,037**	**544**	**25.86**
Alabama	35,002	686	19.6	25,579	456	17.8	9,423	230	24.4
Georgia	15,966	276	17.3	14,514	244	16.8	1,452	32	22.0
Mississippi	8,063	181	22.4	4,973	79	15.9	3,110	102	32.8
North Carolina	15,702	279	17.8	13,529	222	16.4	2,173	57	26.2
South Carolina	11,211	215	19.2	8,525	149	17.5	2,686	66	24.6
Tennessee	22,317	373	16.7	20,294	321	15.8	2,023	52	25.7
Virginia	3,840	59	15.4	3,670	54	14.7	170	5	29.
State Parts*									
Tennessee	27,550	473	17.2	25,391	417	16.4	2,159	56	25.9
Virginia	7,369	131	17.8	7,144	124	17.4	225	7	31.
West Virginia†	27,636	515	18.6	26,424	485	18.4	1,212	30	24.8

Source: Data provided by state departments of vital statistics of the Appalachian states and tabulated by ARC staff.

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
†Entire state.

Appalachian Housing

In 1970 the Appalachian Region contained just under 9 percent of the nation's housing units but a much higher share than the nation of units with various deficiencies: lack of plumbing facilities (most often a flush toilet); poor structural condition and older age; lack of a telephone; or lack of a piped water supply. The average value of owner units ($14,350) was only 74 percent of the U.S. level.

Table 25 and Figure 9 measure the number and proportions of occupied housing units within Appalachia which lack one or more plumbing facilities or have all plumbing but are overcrowded (1.01 or more persons per room). Deficient units constituted 38 percent of all occupied housing in Central Appalachia but only 13 percent in Northern Appalachia and 21 percent in Southern Appalachia. Proportions varied from 11 percent in northern metropolitan counties to 44 percent in Central Appalachian rural counties. Nearly seven out of ten deficient units in the Region had plumbing deficits; in Central Appalachia this proportion reached 86 percent, while in the northern subregion it was only six out of ten.

Changes in definitions make comparisons with 1960 difficult, but on a relative scale, it appears that housing in Northern and Southern Appalachia improved more rapidly than the national average, while Central Appalachian housing lagged behind, probably in part because of the very high rate of outmigration during the 1960s. The Region as a whole showed a slight improvement relatively, but remained with deficiencies about 45 percent higher than the national proportion in 1970 (as measured by the two criteria used).

Table 25

Occupied Housing Units with Deficiencies Appalachian Region and United States 1970

Geographical Division	Occupied Housing Units	Deficient Occupied Housing Units (total number)	Deficient Occupied Housing Units (percent)	Occupied Housing Units Lacking one or More Plumbing Facilities (total number)	Occupied Housing Units Lacking one or More Plumbing Facilities (percent)	Overcrowded Occupied Housing Units with Plumbing (total number)	Overcrowded Occupied Housing Units with Plumbing (percent)
United States	**63,449,747**	**8,237,184**	**13.0%**	**3,772,817**	**45.8%**	**4,464,367**	**54.2%**
Appalachian Region	**5,640,042**	**1,034,077**	**18.3%**	**716,238**	**69.2%**	**317,839**	**30.8%**
Subregions							
Northern Appalachian	**3,045,816**	**399,009**	**13.1%**	**238,927**	**59.9%**	**160,082**	**40.1%**
Maryland	66,635	9,603	14.4	6,533	68.0	3,070	32.0
New York	324,076	26,152	8.1	12,250	46.8	13,902	53.2
Ohio	348,983	70,609	20.2	50,319	71.3	20,290	28.7
Pennsylvania	1,860,471	205,379	11.0	106,621	51.9	98,758	48.1
West Virginia	445,651	87,266	19.6	63,204	72.4	24,062	27.6
Central Appalachia	**522,620**	**200,793**	**38.4%**	**173,733**	**86.5%**	**27,060**	**14.5%**
Kentucky	259,533	108,952	42.0	96,631	88.7	12,321	11.3
Tennessee	104,525	34,418	32.9	29,681	86.2	4,737	13.8
Virginia	57,725	24,310	42.1	21,386	88.0	2,924	12.0
West Virginia	100,837	33,113	32.8	26,035	78.6	7,078	21.4
Southern Appalachia	**2,071,606**	**434,275**	**21.0%**	**303,578**	**69.9%**	**130,697**	**30.1%**
Alabama	653,726	132,000	20.2	90,049	68.2	41,951	31.8
Georgia	247,892	52,824	21.3	35,619	67.4	17,205	32.6
Mississippi	123,903	39,544	31.9	32,406	81.9	7,138	18.1
North Carolina	323,004	65,114	20.2	45,237	69.5	19,877	30.5
South Carolina	201,559	37,623	18.7	23,403	62.2	14,220	37.8
Tennessee	437,217	82,153	18.8	55,865	68.0	26,288	32.0
Virginia	84,305	25,017	29.7	20,999	83.9	4,018	16.1
State Parts*							
Tennessee	541,742	116,571	21.5%	85,546	73.4%	31,025	26.6%
Virginia	142,030	49,327	34.7	42,385	85.9	6,942	14.1
West Virginia†	546,488	120,379	22.0	89,239	74.1	31,140	25.9

Source: 1970 Census of Pouplation and Housing, first count computer file data (100 percent count).

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
†Entire state.

Figure 9

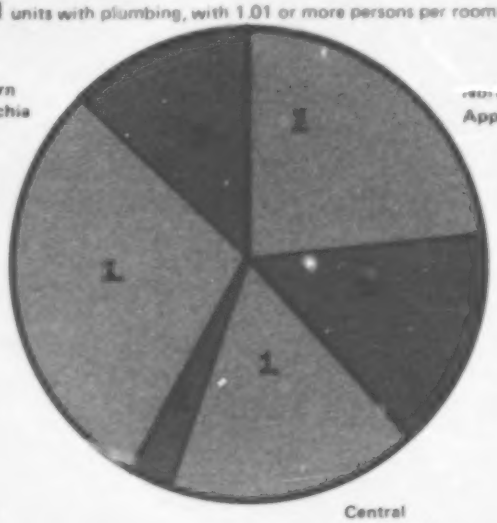
1970

Occupied Housing Units with Deficiencies

Appalachian Region = 1.034 million (18.3% of total occupied housing units)

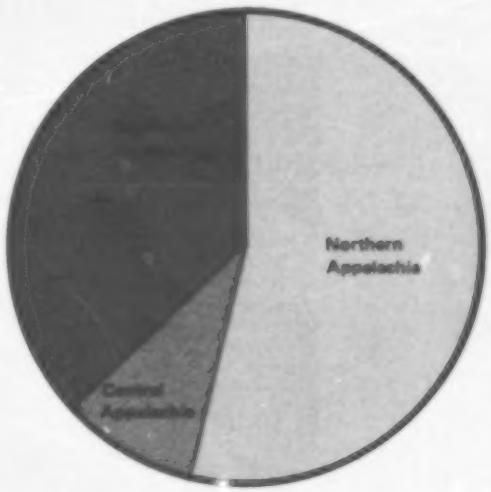
1 ■ units lacking 1 or more plumbing facilities

2 ■ units with plumbing, with 1.01 or more persons per room

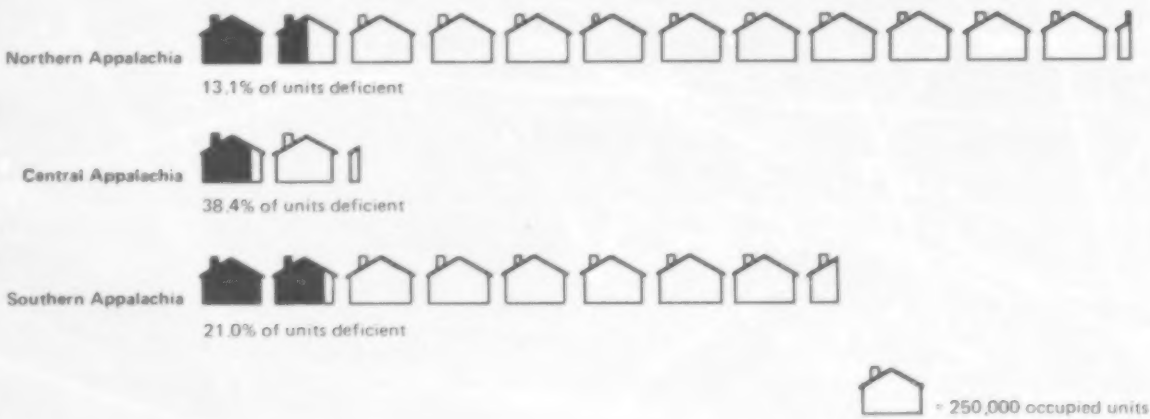


Total Occupied Housing Units

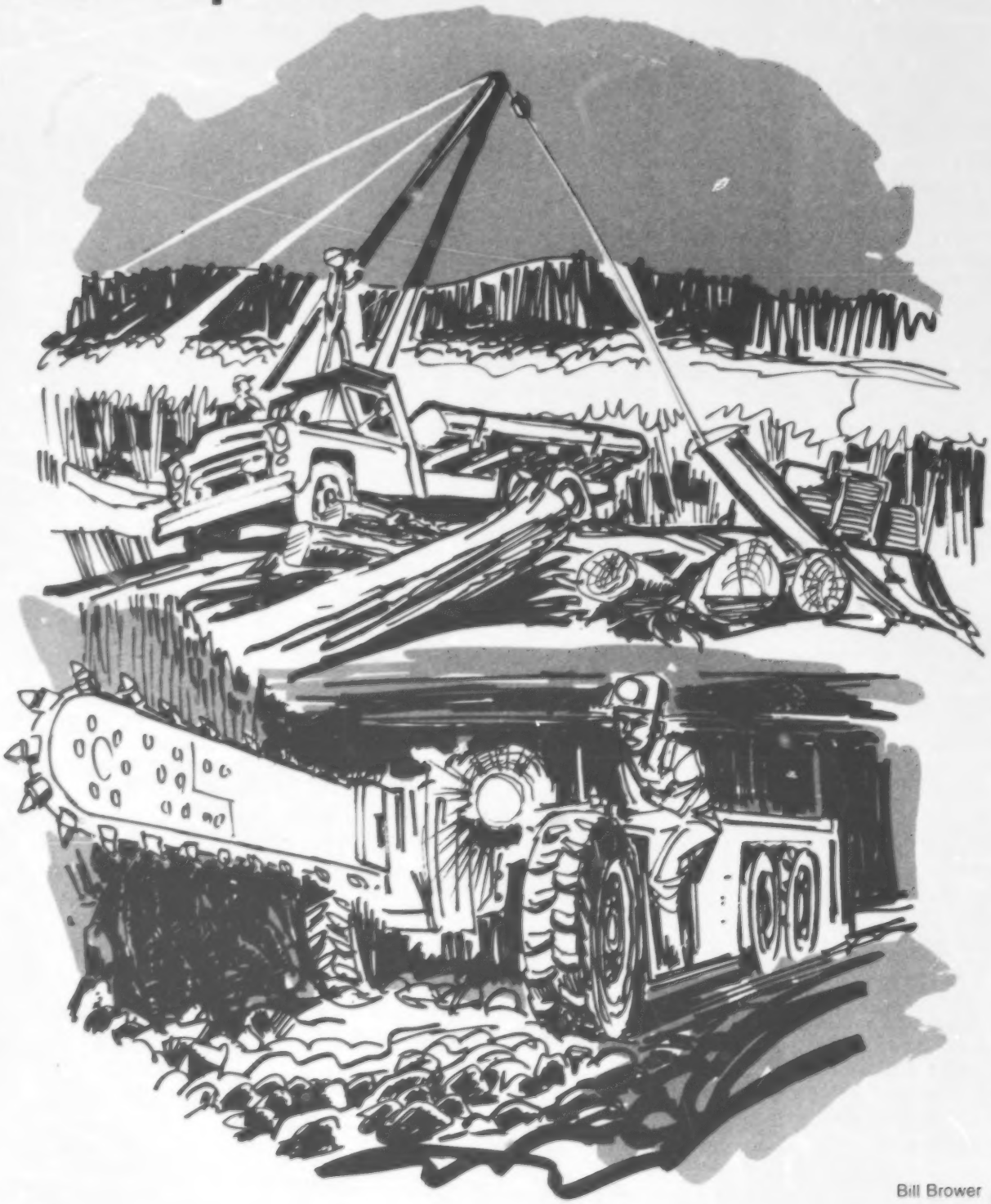
Appalachian Region = 5.64 million



Percentage of Occupied Housing Units with Deficiencies



Natural Resource Development



Bill Brower

Appalachian Coal Production

Appalachia supplied 62 percent of all coal produced in the United States in 1974. The coal is found chiefly in Northern and Central Appalachia, which mined 32 and 26 percent of total U.S. production, respectively (see Table 26 and map on page 71). In contrast, Southern Appalachia mined only 4 percent of the U.S. total in 1974, and this production was concentrated in Alabama and Tennessee. Three states, Kentucky, Pennsylvania and West Virginia, produced 72 percent of Appalachia's coal in 1974. At the same time five other states, Georgia, Mississippi, New York, North Carolina and South Carolina, produced no coal at all.

Surface-mined coal, which includes coal produced by strip, auger and strip-auger methods, has become more important to Appalachia's coal industry in recent years. Between 1970 and 1974 the proportion of surface-mined coal in Appalachia jumped from 35 to 44 percent of the total. However, it still remains less than other areas of the country, in which surface-mined coal accounted for 72 percent of 1974 production. Underground-mined coal, though still constituting 56 percent of Appalachian coal production in 1974, has slipped rapidly from 65 percent of the Region's production four years earlier.

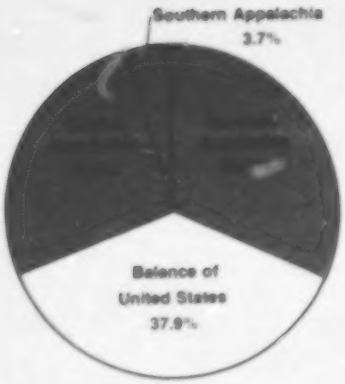
Table 26

Coal Production
Appalachian Region and United States
1970–1974

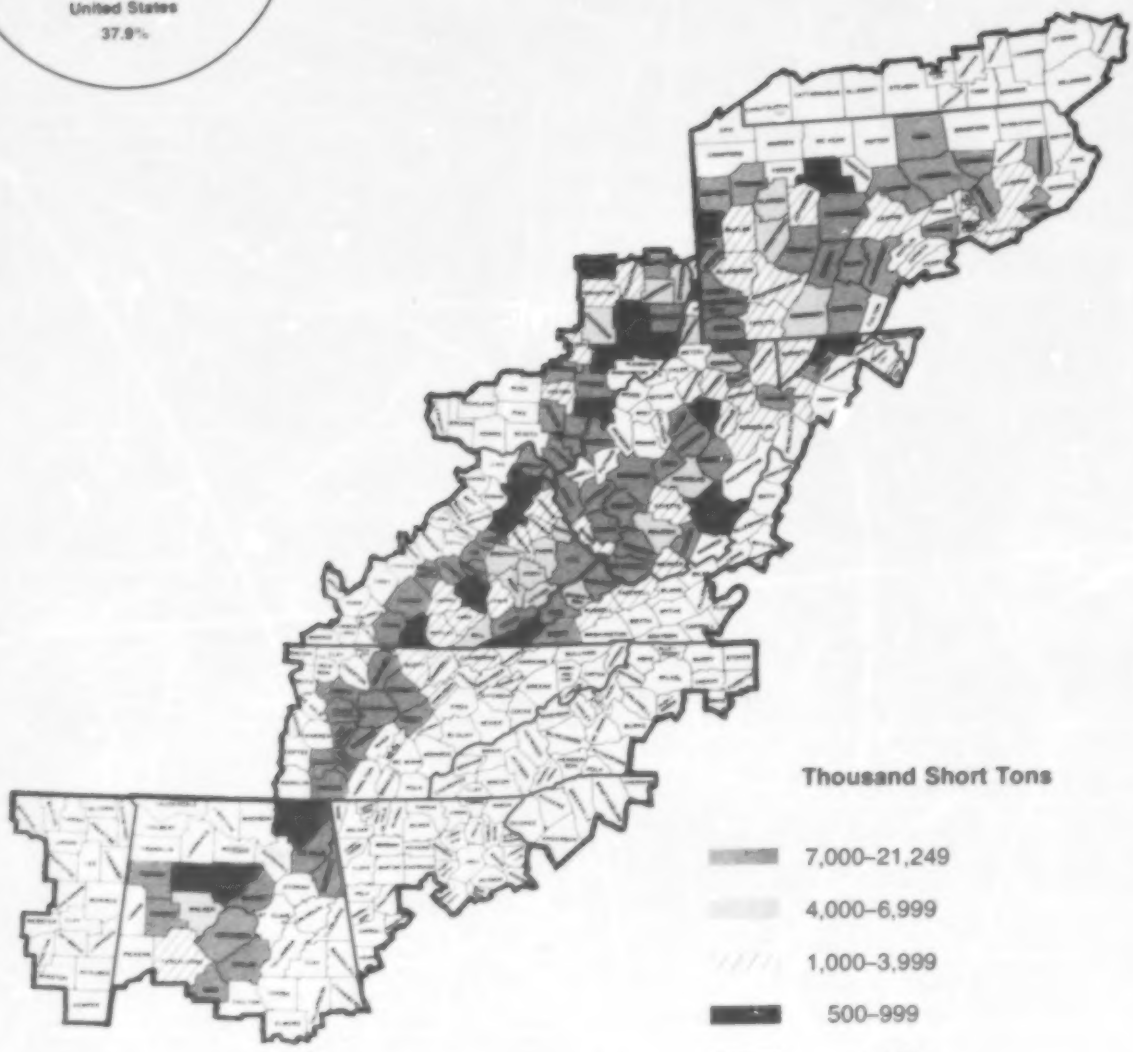
Geographical Division	1974 Underground (in thousand short tons)	1974 Surface (in thousand short tons)	1974 Underground and Surface (in thousand short tons)	1970 Underground and Surface (in thousand short tons)	Percent Change 1970–74
United States	**277,966**	**332,057**	**610,023**	**612,661**	**– 0.4%**
Non-Appalachian United States	**64,999**	**166,179**	**231,178**	**187,157**	**23.5%**
Appalachian Region	**212,967**	**165,878**	**378,845**	**425,504**	**–11.0%**
Subregions					
Northern Appalachia	**106,331**	**89,296**	**195,627**	**232,612**	**–15.9%**
Maryland	90	2,247	2,337	1,615	44.7
New York	—	—	—	—	—
Ohio	14,317	29,351	43,668	53,285	–18.0
Pennsylvania	42,905	40,425	83,330	90,219	– 7.6
West Virginia	49,019	17,273	66,292	87,493	–24.2
Central Appalachia	**97,176**	**63,575**	**160,751**	**171,000**	**– 6.0%**
Kentucky	40,509	44,847	85,356	72,502	17.7
Tennessee	699	4,199	4,898	6,904	–29.1
Virginia	22,767	11,559	34,326	35,016	– 2.0
West Virginia	33,201	2,970	36,171	56,578	–36.1
Southern Appalachia	**9,460**	**13,007**	**22,467**	**21,892**	**2.6%**
Alabama	7,053	12,771	19,824	20,560	– 3.6
Georgia	—	—	—	—	—
Mississippi	—	—	—	—	—
North Carolina	—	—	—	—	—
South Carolina	—	—	—	—	—
Tennessee	2,407	236	2,643	1,332	98.4
State Parts*					
Tennessee	3,106	4,435	7,541	8,236	– 8.4%
Virginia	22,767	11,559	34,326	35,016	– 2.0
West Virginia†	82,220	20,243	102,463	144,071	–28.9

Source: 1974 data are preliminary from the U.S. Bureau of Mines. 1970 data are ARC tabulations from U.S. Bureau of Mines, *1970 Minerals Yearbook*.

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
†Entire state.



1974 Coal Production



Source: U.S. Bureau of Mines, preliminary 1974 data (subsequently published in *1974 Minerals Yearbook*).

Mineral Industry Establishments in the Appalachian Region

Mineral industry establishments and operations in the Appalachian Region were 22 percent of the total number in the nation in 1972, but this relatively high level was essentially due to coal mining operations, which comprised 84 percent of the U.S. total number and accounted for 54 percent of all mineral establishments in the Region (see Table 27). However, for both coal and oil and gas operations, the Appalachian industry is older than its counterparts farther west, and production per operation was less than the national average. Three sectors of the nonmetallic minerals mining also had relatively high proportions of U.S. total establishments: dimension stone (estimated at about one-fourth); clays, ceramic and refractory materials (about one-fifth); and the crushed stone industry (just under one-fifth). These data are not surprising in view of the earth resources of the mountains and their location in the densely populated eastern United States, but the very low number of metallic ore mines (only 3 percent of the nation's) contrasts with other operations.

Within the Region mineral fuels accounted for 86 percent (4,833) of all mining operations. Of the 747 nonmetallic mineral establishments, crushed stone quarries are estimated to constitute about 45 percent of the total; sand and gravel extraction, about one-third; clays, ceramic and refractory materials, about one-tenth; dimension stone, 7 to 8 percent; and miscellaneous minerals, 6 to 7 percent. Bituminous coal mining is concentrated in Central Appalachia; Northern Appalachia has all of the anthracite coal mining (in Pennsylvania) and the lion's share of oil and gas extraction, but in economic importance, bituminous coal leads in the North. Southern Appalachia has the majority of its operations in nonmetallic minerals, of which there is a diversity. In addition, most of the metal ore mines in the Region are in the South, concentrated in Tennessee.

Table 27

Number of Mineral Industry Establishments Appalachian Region and United States 1972

Geographical Division	All Mineral Industries	Metal Mining	Anthracite Mining	Bituminous Coal and Lignite Mining	Oil and Gas Extraction	Nonmetallic Minerals Mining
United States	**25,269**	**1,014**	**230**	**3,365**	**14,498**	**5,162**
Appalachian Region	**5,608**	**28**	**224**	**2,807**	**1,802**	**747**
Subregions						
Northern Appalachia	**3,333**	**3**	**224**	**1,219**	**1,488**	**399**
Maryland	48	—	—	30	4	14
New York	147	1	—	—	108	38
Ohio	723	—	—	185	441	97
Pennsylvania	1,393	1	22[illegible]	577	388	203
West Virginia	1,022	1	—	427	547	47
Central Appalachia	**1,824**	**4**	**—**	**1,460**	**269**	**91**
Kentucky	909	1	—	697	162	49
Tennessee	139	3	—	105	8	23
Virginia	406	—	—	387	9	10
West Virginia	370	—	—	271	90	9
Southern Appalachia	**451**	**21**	**—**	**128**	**45**	**257**
Alabama	167	3	—	90	18	56
Mississippi	37	—	—	—	18	19
North Carolina	56	1	—	1	2	52
South Carolina	6	—	—	—	—	6
Tennessee	115	13	—	33	3	66
Virginia	34	2	—	4	1	27
States Parts*						
Tennessee	254	16	—	138	11	89
Virginia	440	2	—	391	10	37
West Virginia†	1,392	1	—	698	637	56

Source: U.S. Bureau of Census, *1972 Census of Mineral Industries*. Tabulations by ARC staff.

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
†Entire state.

Agriculture and Farm Land in Appalachia

The Appalachian Region occupies a central location in and includes the most mountainous parts of the eastern United States. The Region accounts for the following shares of the total area comprised by the 26 states east of the Mississippi River:

- 23 percent of the total land area
- 21 percent of the total farm population
- 19 percent of the total farm acreage
- 14 percent of the value of farm products sold (1969) by farms with sales of $2,500 or more each
- 13 percent of the total value of farm land and buildings.

Appalachian farms are small (average: 133 acres in 1969) even by eastern U.S. standards (see Table 28). In addition, the value of land and buildings per acre is significantly lower ($227) than elsewhere in the eastern United States. ($347). Farm production in Northern Appalachia is specialized in dairying (49 percent), in Central Appalachia in livestock and crops (74 percent) and in Southern Appalachia in poultry and poultry products (51 percent). Farm size is smallest in Appalachian North Carolina, but total value of land and buildings per acre is lowest in West Virginia. These characteristics are in part inherited from earlier days of isolation and subsistence farming as well as related to the rugged topography.

Less than one-half of all land was in farms everywhere in the Region excepting in Appalachian Mississippi and Ohio. Elsewhere in the eastern United States farm land accounted for more than one-half of the total in non-Appalachian Ohio, Kentucky, Tennessee and Misssippi and in the states of Delaware, Illinois, Indiana and Wisconsin. For the entire Region farm acreage was 38 percent of the total, while it was 48 percent of the total land in the eastern United States. The decline in the number of farms is parallel to national and regional trends, with rapid declines in the Appalachian parts of South Carolina, West Virginia and Mississippi.

Table 28

Farm Land and Selected Characteristics of Farms Appalachian Region and States East of Mississippi River 1969

Geographical Division	Land Area 1970 (in thousands of acres)	Farm Land 1969 (in thousands of acres)	Farm Land as Percent of Total	Number of Farms 1969	Percent Change in Number of Farms 1959–69	Average Farm Size 1969 (in acres)	Average Farm Value per Acre 1969
States East of Mississippi River (entire state)	**540,126**	**249,040**	**45.6%**	**1,427,271**	**–31.2%**	**174**	**$324**
States East of Mississippi River (Non-Appalachian part)	**421,409**	**201,935**	**47.9%**	**1,072,523**	**–30.6%**	**188**	**$347**
Appalachian Region	**124,717**	**47,105**	**37.8%**	**354,748**	**–33.1%**	**133**	**$227**
Subregions							
Northern Appalachia	**53,492**	**18,343**	**34.3%**	**106,931**	**–37.8%**	**172**	**$196**
Maryland	989	358	36.2	1,974	–39.8	181	274
New York	7,555	3,269	43.3	15,439	–37.0	212	176
Ohio	8,789	4,444	50.6	28,891	–28.1	154	206
Pennsylvania	23,440	6,338	27.0	40,190	–39.8	158	233
West Virginia	12,718	3,934	30.9	20,437	–45.2	192	135
Central Appalachia	**20,420**	**8,414**	**41.2%**	**76,039**	**–28.0%**	**111**	**$199**
Kentucky	10,843	4,976	45.9	44,587	–27.8	112	196
Tennessee	4,819	2,273	47.2	21,360	–21.5	106	212
Virginia	2,072	765	36.9	7,395	–25.3	103	206
West Virginia	2,687	400	14.9	2,697	–60.0	148	145
Southern Appalachia	**50,806**	**20,348**	**40.1%**	**171,778**	**–32.1%**	**118**	**$266**
Alabama	15,744	6,022	38.2	43,195	–32.8	139	237
Georgia	6,915	2,250	32.5	18,084	–36.6	124	292
Mississippi	6,599	3,718	56.3	21,449	–42.2	173	201
North Carolina	7,607	2,464	32.4	31,162	–31.9	79	331
South Carolina	2,503	762	30.4	6,185	–52.3	123	328
Tennessee	7,496	3,437	45.9	39,777	–16.9	86	337
Virginia	3,942	1,695	43.0	11,926	–27.3	142	212
State Parts*							
Tennessee	12,314	5,710	46.4	61,137	–18.6	93	$287
Virginia	6,014	2,460	40.9	19,321	–26.5	127	210
West Virginia†	15,405	4,334	28.1	23,134	47.4	187	136

Source: Data from 1969 Census of Agriculture, summarized in *County and City Data Book, 1972* computer data files.

*Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
†Entire state.

Local Governments

Bill Brower

Local Governments in the Appalachian Region

With 9 percent of the U.S. population, the Appalachian Region had in 1971–72 10 percent of the number of local governments in the nation; these governments spent only 6 percent of all funds disbursed by local government.

Governmental complexity measured by number of governmental units per 100,000 population was greatest in Appalachian Ohio, New York and Pennsylvania. These three states, with 44 percent of regional population in 1971, accounted for 65 percent of the number of local governments in the Region and raised the average level of Northern Appalachia much above the rest of the Region.

Table 29 shows detailed data as well as trends from 1967 to 1972 in the Region. During this five-year span there was a sharp reduction in the number of school districts, virtually all in Northern Appalachia; an increase in special districts in all subregions, but with the greatest rate of increase in Central Appalachia; and a small gain in the number of incorporated places, with Southern Appalachia recording the lion's share. Townships located entirely in Pennsylvania, Ohio and New York composed 24 percent of the grand total of all governments in the Region and hardly changed in number over the period.

Appalachia's local governments raised $3.4 billion of local general revenues in 1971–72, 5.2 percent of the national total locally raised. Revenue sharing by the states added to this by providing $2.6 billion of state aid within the Region (7.45 percent of the national total of such aid). Federal general revenue sharing had not yet been implemented in the census year, and total federal direct aid to the Region's local governments amounted to $0.3 billion in 1971–72, or 6.2 percent of the national total. The Region's level of per capita general revenues slipped in every category (locally raised, state and federal aid) relative to national trends in the five-year period (1967–72). Northern Appalachia showed both the highest level of expenditures and the greatest growth rate in the period 1967–72 among the three subregions (see Table 30 on page 79 and Figure 10 on page 80.

Table 29

Number of Local Governments by Category Appalachian Region and United States 1966–1972

Geographical Division	1971–72 Local Governments	County Governments	Incorporated Places	All Other Units*	Local Governments per 100,000 Population	1966–67 Local Governments	1967–72 Change in Number
United States	**78,218**	**3,044**	**18,517**	**56,657**	**37.9**	**81,248**	**–3,030**
Appalachian Region	**7,840**	**397**	**2,206**	**5,237**	**42.4**	**7,651**	**189**
Subregions							
Northern Appalachia	**5,546**	**143**	**1,316**	**4,087**	**56.4**	**4,480**	**– 34**
Maryland	43	3	24	16	20.4	42	1
New York	750	14	130	606	70.3	775	– 25
Ohio	899	28	226	645	78.2	919	– 20
Pennsylvania	3,427	52	748	2,627	57.3	3,462	– 35
West Virginia	427	46	188	193	30.0	382	45
Central Appalachia	**631**	**85**	**205**	**341**	**35.2**	**544**	**87**
Kentucky	366	49	94	223	40.7	301	65
Tennessee	143	20	46	77	41.6	129	14
Virginia	41	7	27	7	20.1	41	0
West Virginia	81	9	38	34	23.6	73	8
Southern Appalachia	**1,663**	**169**	**685**	**809**	**24.2**	**1,527**	**136**
Alabama	518	35	239	244	23.9	466	52
Georgia	308	35	131	142	36.4	292	16
Mississippi	200	20	67	113	46.9	188	12
North Carolina	173	29	81	63	16.4	161	12
South Carolina	131	6	46	79	19.5	115	16
Tennessee	278	30	91	157	19.4	252	26
Virginia	55	14	30	11	19.8	53	2
State Parts†							
Tennessee	421	50	137	234	23.7	381	40
Virginia	96	21	57	18	19.9	94	2
West Virginia‡	508	55	226	227	28.7	455	53

Source: U.S. Bureau of Census, *1972 Census of Governments*, Volume I, Governmental Organization and *1967 Census of Governments*, Volume I, Governmental Organization. Data entered in file and tabulated by ARC data systems staff.

*All other units: United States—17,105 townships; 21,782 school districts; 21,264 special districts
Appalachian Region—1,864 townships; 926 school districts; 2,447 special districts

Change: United States—Decrease of 5 counties; increase of 469 places; decrease of 114 townships; decrease of 6,001 school districts; increase of 2,621 special districts
Appalachian Region—Increase of 60 incorporated places; decrease of 4 townships; decrease of 253 school districts; increase of 386 special districts

†Figures for the two subregional portions of these three states, the only states which fall in two subregions, are combined here.
‡Entire state.

Table 30

Local Government Finances
Appalachian Region and United States

	Fiscal Year 1971–72 Revenues				Fiscal Year 1971-72 Expenditures			
	General Revenues (millions)	Locally Raised Revenue per Capita	Locally Raised Revenue per Capita as Percent of Total General Revenues	State Aid as Percent of Total General Revenues	General Expenditures (millions)	Expenditures per Capita	Education Expenditures as Percent of Total General Expenditures	1967–72 Percent Change in per Capita Expenditures
United States	**$105,243.0**	**$318**	**62.3%**	**33.4%**	**$106,499.0**	**$516**	**45.7%**	**70.9%**
Appalachian Region	**$ 6,337.7**	**$186**	**54.2%**	**41.3%**	**$ 6,344.5**	**$343**	**54.5%**	**61.6%**
Northern Appalachian States								
(Appalachian portion)	**$ 3,399.6**	**$223**	**55.2%**	**40.4%**	**$ 3,382.9**	**$402**	**54.7%**	**63.3%**
Maryland	89.3	210	49.7	45.7	85.0	403	57.4	46.5
New York	702.4	308	46.8	50.4	742.7	696	49.0	74.0
Ohio	370.8	192	59.6	36.7	370.3	322	53.6	59.4
Pennsylvania	2,237.1	214	57.3	37.6	2,184.9	365	56.7	68.2
Central Appalachian States								
(Appalachian portion)	**$ 1,340.9**	**$139**	**54.1%**	**43.8%**	**$ 1,348.9**	**$274**	**60.5%**	**51.8%**
Kentucky	220.5	85	38.2	57.4	188.6	210	73.3	32.1
Tennessee	540.8	174	57.2	36.3	563.6	317	49.2	48.8
Virginia	122.2	109	40.3	53.3	118.1	245	67.3	64.4
West Virginia*	477.4	142	52.6	44.2	478.6	271	67.1	63.3
Southern Appalachian States								
(Appalachian portion)	**$ 1,597.3**	**$168**	**54.4%**	**41.3%**	**$ 1,612.7**	**$312**	**49.3%**	**58.9%**
Alabama	658.5	177	58.1	36.7	665.5	307	45.5	56.6
Georgia	261.3	180	58.2	39.5	266.6	316	52.0	59.6
Mississippi	128.4	135	44.7	51.1	130.4	306	52.0	45.7
North Carolina	354.1	155	46.4	49.5	353.4	334	49.7	58.3
South Carolina	195.0	168	57.9	37.8	196.8	293	55.8	78.7

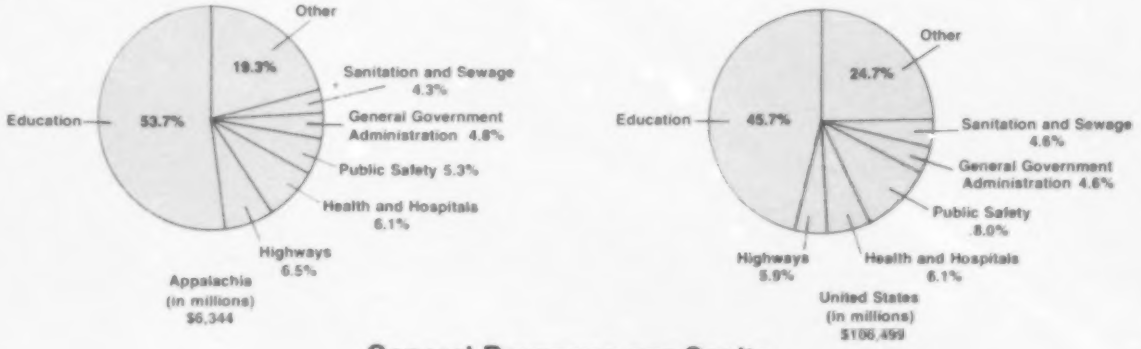
Source: U.S. Bureau of Census, *1972 Census of Governments*, special computer data tape prepared by Governments Division for ARC. Tabulated by ARC data systems staff.

*Entire state.

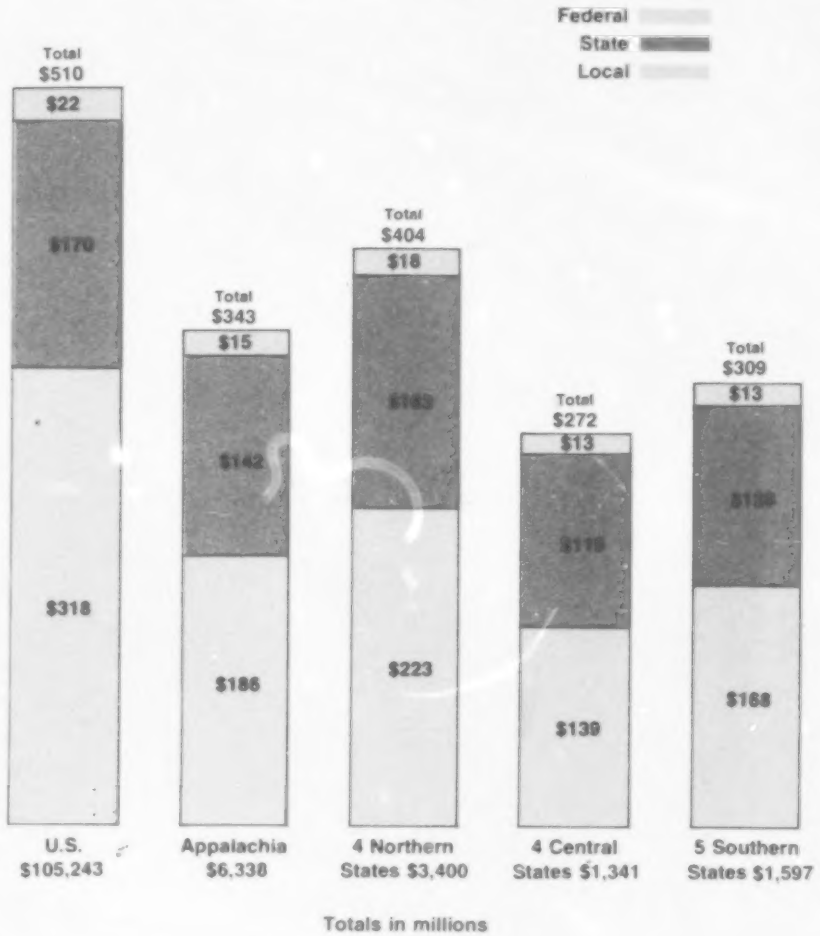
Figure 10

Local Government Expenditures by Function and General Revenues per Capita 1971–1972

General Expenditures by Function



General Revenues per Capita



Totals in millions

Appalachian Regional Commission Members

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